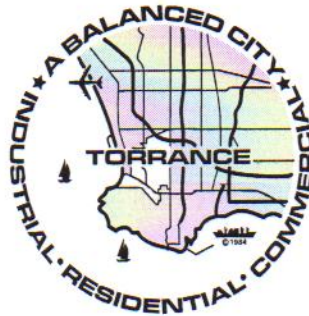


**BIDDER'S SUBMITTAL, SPECIFICATIONS, BOND AND AFFIDAVIT
FOR THE CONSTRUCTION OF**

**CRENSHAW BOULEVARD REHABILITATION, T-22
(190th STREET TO 182ND STREET)**

B2013-50

Federal Project No. HPLUL-5249 (022)



**CRAIG BILEZERIAN
City Engineer**

October 2013

TABLE OF CONTENTS

SECTION A - NOTICE INVITING BIDS

NOTICE INVITING BIDS.....	A-1
---------------------------	-----

SECTION B

INSTRUCTIONS TO BIDDERS	B-1
-------------------------------	-----

SECTION C - BID DOCUMENTS

BIDDER'S SUBMITTAL	C-6
ACKNOWLEDGMENT OF ADDENDA RECEIVED	C-12
CONTRACTOR'S AFFIDAVIT	C-13
BID BOND	C-15
LIST OF SUBCONTRACTORS	C-16
REFERENCES.....	C-17
VIOLATIONS OF FEDERAL, STATE OR LOCAL LAWS.....	C-19
NOTICE TO BIDDERS - FEDERAL REQUIREMENTS.....	C-20

SECTION D - DOCUMENTS TO BE COMPLETED AND DELIVERED TO CITY PRIOR TO AWARD OF CONTRACT

PERFORMANCE BOND	D-2
LABOR AND MATERIAL BOND	D-4
PUBLIC WORKS AGREEMENT.....	D-7
CONSTRUCTION OR SERVICE CONTRACT ENDORSEMENT.....	D-17
WORKERS' COMPENSATION INSURANCE CERTIFICATION.....	D-19

SECTION E - SPECIAL PROVISIONS

APPENDIX I -	CITY OF TORRANCE PERMIT AND BUSINESS LICENSE
APPENDIX II -	CITY OF TORRANCE STANDARD PLANS
APPENDIX III -	SPPWC STANDARD PLANS
APPENDIX IV -	CALTRANS STANDARD PLANS
APPENDIX V -	CONSTRUCTION AND DEMOLITION WASTE MANAGEMENT PLAN (WMP)
APPENDIX VI -	VIDEO DETECTION GENERAL PROCUREMENT SPECIFICATION
APPENDIX VII -	SIGNING TABLE
APPENDIX VIII -	PROJECT CONSTRUCTION SIGN
APPENDIX IX -	CALTRANS ENCROACHMENT PERMIT
APPENDIX X -	FEDERAL REQUIREMENTS
APPENDIX XI -	TRAFFIC SIGNAL MODIFICATION PLAN (FOR REFERENCE ONLY)

SECTION A

NOTICE INVITING BIDS

CITY OF TORRANCE, CALIFORNIA

NOTICE INVITING BIDS

Notice is hereby given that sealed bids for performing the following described work will be received at the Office of the City Clerk of the City of Torrance, California, **until 3:00 p.m. on Wednesday , December 11, 2013**, after which time they will be publicly opened and read at 3:15 p.m. in the Council Chambers of said City:

**CONSTRUCTION OF
CRENSHAW BOULEVARD REHABILITATION, T-22
(190TH STREET TO 182ND STREET)
B2013-50; Federal Project No. HPLUL-5249(022)**

Plans, Bid Schedule and Specifications are available for viewing and printing on the City website at <http://www.torranceca.gov/18649.htm>

Those who only view and/or print the Plans, Bid Schedule and Specifications from the City's website will not automatically be added to the City's Plan Holder list for this project.

The official Bidder's Submittal forms must be obtained at the Office of the City Clerk, City Hall, 3031 Torrance Boulevard, Torrance, California at (310) 618-2870. There is no cost if picked up at City Hall. A payment of \$5 is required if requested by mail. The amount includes tax and is not refundable. A prospective bidder must provide to the City Clerk the firm's name, address, telephone and fax numbers, a contact person and a valid email address. This will ensure that your firm is listed as a "Plan Holder" and that you will be informed of any and all information issued subsequent to obtaining the official Bidder's Submittal form. Addenda will be issued only by email and only to those that provide the required information to the City Clerk. Receipt of any Addendum must be acknowledged by a bidder in its submitted form of Bidder's Submittal. **If a bidder submits its Bidder's Submittal on a form other than the official Bidder's Submittal form, the City may declare the bid as non-responsive.**

Full-size 24" x 36" Plans and a bound Specifications booklet may also be obtained at the Office of the City Clerk (310) 618-2870, City Hall, 3031 Torrance Boulevard, Torrance, California upon payment of \$45 if picked up at City Hall, or payment of \$60 if requested by mail. Both amounts include tax. Neither amount is refundable. The \$45 or \$60 purchase includes a copy of the official form of Bidder's Submittal. If requesting any item(s) by mail, please send check to the following:

**CITY OF TORRANCE
OFFICE OF THE CITY CLERK
3031 TORRANCE BLVD
TORRANCE, CA 90503
ATTN: B2013-50**

The Engineer's estimate of the contract total is between \$1,700,000 and \$1,900,000. All work shall be completed within 100 working days from the date of the Notice to Proceed (NTP).

Per Division 2, Chapter 2 of the Torrance Municipal Code, the Torrance City Council may reject any and all bids, waive any informality or irregularity in such bids, and determine the lowest responsible bidder. No facsimile bids shall be accepted by the City.

The DBE Contract goal is 14% percent. Refer to Section D4 "Disadvantaged Business Enterprises (DBE)" for DBE requirements.

The City of Torrance hereby notifies all bidders that it will affirmatively ensure that in any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full opportunity to submit bids in response to this invitation.

Substitution of securities for withheld funds is permitted per Section 22300 of the Public Contract Code.

The City has determined that a Class **A** Contractor's license is necessary to bid this project, but reserves the right to accept another Class at the sole discretion of either the Public Works Director or City Engineer.

This project is subject to the "Buy America" provisions of the Surface Transportation Assistance Act of 1982 as amended by the Intermodal Surface Transportation Efficiency Act of 1991.

Pursuant to Section 1770 et seq. of the California Labor Code, the minimum prevailing rate of per diem wages for each craft, classification, or type of workman needed to execute the Contract shall be those determined by the Director of Industrial Relations of the State of California. These wages are set forth in the General Prevailing Wage Rates for this project, available from the California Department of Industrial Relations' Internet web site at <http://www.dir.ca.gov/DLSR/PWD>.

The Federal minimum wage rates for this project as predetermined by the United States Secretary of Labor are set forth in the Bid book and in copies of this book that may be examined at the offices described above where project plans, special provisions, and bid forms may be seen. Addenda to modify the Federal minimum wage rates, if necessary, will be issued to holders of Bid book. Future effective general prevailing wage rates, which have been predetermined and are on file with the California Department of Industrial Relations are referenced but not printed in the general prevailing wage rates.

Attention is directed to the Federal minimum wage rate requirements in this Bid book (shown in Appendix X). If there is a difference between the minimum wage rates predetermined by the Secretary of Labor and the general prevailing wage rates determined by the Director of the California Department of Industrial Relations for similar classifications of labor, the Contractor and subcontractors shall pay not less than the higher wage rate. The Department will not accept lower State wage rates not specifically included in the Federal minimum wage determinations. This includes "helper" (or other classifications based on hours of experience) or any other classification not appearing in the Federal wage determinations. Where Federal wage determinations do not contain the State wage rate determination otherwise available for use by the Contractor and subcontractors, the Contractor and subcontractors shall pay not less than the Federal minimum wage rate, which most closely approximates the duties of the employees in question.

The U.S. Department of Transportation (DOT) provides a toll-free "hotline" service to report bid rigging activities. Bid rigging activities can be reported Mondays through Fridays, between 8:00 a.m. and 5:00 p.m., Eastern Time, Telephone No. 1-800-424-9071. Anyone with knowledge of possible bid rigging, bidder collusion, or other fraudulent activities should use the "hotline" to report these activities. The "hotline" is part of the DOT's continuing effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of the DOT Inspector General. All information will be treated confidentially and caller anonymity will be respected.

By order of the City Council of the City of Torrance, California.

For further information, please contact Lubna Arikat, Associate Engineer in the Public Works Department at (310) 781-6900.

SECTION B

INSTRUCTIONS TO BIDDERS

CITY OF TORRANCE, CALIFORNIA

INSTRUCTIONS TO BIDDERS

A. QUALIFICATION OF BIDDERS

1. Competency of Bidders

The Bidder shall be thoroughly competent and capable of satisfactorily performing the Work covered by the Bid. As specified in the Bid Documents, the Bidder shall furnish statements of previous experience on similar work. When requested, the Bidder shall also furnish the plan of procedure proposed; the organization, machinery, plant and other equipment available for the Work; evidence of its financial condition and resources; and any other such documentation as may be required by the City to determine if the Bidder is responsible.

2. Contractor's License

At the time of submitting the Bid, the Bidder shall be licensed as a contractor in accordance with the provisions of Chapter 9, Division 3, of the California Business and Professions Code. The required prime contractor license class for the Work is shown in the project Notice Inviting Bids. However, the City reserves the right to award the Contract to a contractor with another class if the City determines that the license is proper for the work.

B. BIDDER RESPONSIBILITY

A responsible Bidder is a Bidder who has demonstrated the attribute of trustworthiness, as well as ability, fitness, capacity and experience to satisfactorily perform the work.

Bidders are notified that, in accordance with Division 2, Chapter 2 of the Torrance Municipal Code, the City Council may determine whether the Bidder is responsible based on a review of the Bidder's performance on other contracts.

If, based on the provision and criteria in Division 2, Chapter 2 of the Torrance Municipal Code, the Public Works Director proposes not to recommend the award of contract to the apparent low bidder, the Director shall notify the Bidder in writing of its intention to recommend to the City Council that the Council award the contract to the 2nd lowest responsible bidder. If the Bidder presents evidence in rebuttal to the recommendation, the Director shall evaluate the merits of such evidence, and based on that evaluation, make a recommendation to the City Council.

C. ADDENDA TO THE CONTRACT DOCUMENTS

The City may issue Addenda to the Contract Documents during the period of advertising for any reason. Addenda will be issued only by email and to those considered "Plan Holders". Refer to the Notice Inviting Bid for instructions on becoming a "Plan Holder". The Bidder shall acknowledge the receipt of the Addenda in their Bid. Failure of the Bidder to do so may result in the rejection of the Bid as non-responsive.

D. PREPARATION OF THE BID

1. Examination of Site, Plans and Specifications

Prior to submitting a Bid, the Bidder shall examine the Plans and the Work site, carefully read the Specifications, and satisfy itself that it has the abilities and resources to complete the Work. The Bidder agrees that if it is awarded the Contract, no claim will be made against the City based on ignorance or misunderstanding of the provisions of the Contract Documents, the nature and amount of the work, and the physical and climatic conditions of the work site.

2. Estimated Quantities

The quantities shown in the Bid are approximate only. The Contractor will be paid for the actual quantities of work based on field measurements as provided for in these Specifications. The City reserves the right to increase or decrease the amount of any item or portion of work to be performed or materials furnished, or to delete any item, in accordance with the Specifications.

3. Bid Instructions and Submissions

The Bid shall be submitted on the Bidder's Submittal forms included with the Specifications. All Bid Documents must be completed, executed and submitted with the Bid by the Bidder.

Required Bidder's Submittal Documents:

- 1) Bidder's Submittal
- 2) Acknowledgment Of Addenda Received
- 3) Contractor's Affidavit
- 4) Bid Bond (10%)
- 5) List of Subcontractors
- 6) References (2 pages)
- 7) Violations of Federal or State Law
- 8) Notice to Bidders - Federal Requirements for Federal-Aid Projects
- 9) Equal Employment Opportunity Certification
- 10) Noncollusion Affidavit
- 11) Debarment and Suspension Certification
- 12) Non-lobbying Certification for Federal-Aid Contracts
- 13) Disclosure of Lobbying Activities

All prices submitted will be considered as including any and all taxes. In the case of discrepancy between unit bid price and total bid, the unit price shall prevail.

4. Disadvantaged Business Enterprise (DBE) Requirements

This project is subject to Title 49 CFR 26.13(b). A bidder is referred to the requirements listed in Section C "Performance of DBE" on page C-36 of these Specifications.

E. BID BOND

The Bid must be accompanied by either cash, a certified or cashier's check or a surety bond (bid bond) payable to the City of Torrance. Bids must be submitted on the Bidder's Submittal forms furnished by the Public Works Department. The Bid Guaranty shall be in an amount equivalent to at least 10% of the Total Contract Bid Price.

F. NONRESPONSIVE BIDS AND BID REJECTION

1. A Bid in which any of the required Bidder's Submittal documents are not completed, executed and submitted may be considered non-responsive and be rejected.
2. A Bid in which the Contract Unit Prices are unbalanced, which is incomplete or which shows alteration of form or irregularities of any kind, or which contains any additions or conditional or alternate Bids that are not called for, may be considered non-responsive and be rejected.

G. AWARD OF CONTRACT

In accordance with Division 2, Chapter 2 of the Torrance Municipal Code, the City Council reserves the right to reject any and all bids received, to take all bids under advisement for a period not-to-exceed one-hundred (100) days after date of opening thereof, to waive any informality or irregularity in the Bid, and to be the sole judge of the merits of material included in the respective bids received.

No less than 2 weeks prior to the anticipated City Council meeting awarding a contract as a result of the Notice Inviting Bids, the City will notify all of the vendors that submitted a bid of the intention to award.

City of Torrance Bid/RFP Protest Procedures: The City of Torrance Bid/RFP Protest Procedures may be found on the City of Torrance website:

http://www.torranceca.gov/PDF/Bid_RFP_Protest_Procedures.pdf

H. EXECUTION OF CONTRACT

After the Contract is awarded, the awardee shall execute the following eight (8) documents:

- 1) Performance Bond (100% of Bid)
- 2) Labor and Material Bond (100% of Bid)
- 3) Contract - Public Works Agreement
- 4) Verification of Insurance Coverage (Certificates and Endorsements)
- 5) Construction or Service Contract Endorsement
- 6) Workers' Compensation Insurance Certificate
- 7) Construction Permit Application Form
- 8) Business License Application Form

I. APPRENTICESHIP EMPLOYMENT STANDARDS

The Contractor is directed to the provisions in Sections 1776, 1777.5 and 1777.6 of the California Labor Code concerning the employment of apprentices by the contractor or any subcontractor under them.

J. PERMITS, LICENSES AND PUBLIC WORKS AGREEMENT

The Contractor shall procure and execute all permits, licenses, pay all charges and fees, and give all notices necessary and incidental to the completion of the Work. The Contractor shall execute a Public Works Agreement. No fee is charged for a Construction-Excavation Permit issued by the City of Torrance for a public works project. The Contractor shall obtain a City of Torrance Business License.

The Contractor shall be required to obtain a "rider" to the City of Torrance's encroachment permit from the State.

K. INSURANCE

The Contractor shall maintain Insurance as specified in the Public Works Agreement included in Section D of these Specifications.

L. PRE-BID INQUIRIES

A Bidder with a Pre-Bid Inquiry must submit its question(s) in writing to the Torrance Public Works Department. Any and all questions must be emailed to both Mr. Craig Bilezerian, City Engineer at cbilezerian@torranceCA.gov and to Ms. Lubna Arikat, Associate Engineer at larikat@torranceCA.gov. Please list "**Crenshaw Blvd RFI**" in the subject line of the email.

All questions must be received no later than 5:00 p.m. on the Wednesday 1 week prior to the date for opening the bids. Questions received after this date may not be considered. For questions of a general nature, a bidder may call Ms. Lubna Arikat directly at (310) 618-3066.

SECTION C
BID DOCUMENTS

BIDDER'S SUBMITTAL

Company: _____

Total Bid: _____ (PROVIDE NUMBERS)

CRENSHAW BOULEVARD REHABILITATION, T-22 (190th STREET TO 182nd STREET)

B2013-50; FEDERAL PROJECT NO. HPLUL-5249(022)

Honorable Mayor and Members
of the Torrance City Council
Torrance, California

Members of the Council:

In accordance with the Notice Inviting Bids pertaining to the receiving of sealed Submittals by the City Clerk of the City of Torrance for the above titled improvement, the undersigned hereby proposes to furnish all Work to be performed in accordance with the Plans, Specifications, Standard Drawings, and the Contract Documents, for the unit price or lump sum set forth in the following schedule

BID SCHEDULE

Item No.	Approx. Qty	Unit of Measure	Bid Item Description and Specification Section	Unit Price	Total Bid
CONTRACT ADMINISTRATION					
A1	1	LS	MOBILIZATION (5% MAX. OF CONTRACT BID) 9-3.4	\$	\$
A2	1	LS	STORMWATER POLLUTION PREVENTION PLAN 7-8.6.2	\$	\$
A3	1	LS	NPDES COMPLIANCE 7-8.6.1	\$	\$
A4	1	LS	CONSTRUCTION SURVEYING 2-9.5 (BY A CA REGISTERED LAND SURVEYOR)	\$	\$
A5	1	LS	PORTABLE CHANGEABLE MESSAGE SIGNS 7-15	\$	\$
A6	2	EA	PROJECT CONSTRUCTION SIGNS 7-15	\$	\$
A7	1	LS	CONSTRUCTION SCHEDULE 6-1.4	\$	\$
A8	1	ALW	PERMIT AND FEES 7-5	\$6,000.00	\$6,000.00

Item No.	Approx. Qty	Unit of Measure	Bid Item Description and Specification Section	Unit Price	Total Bid
STREET IMPROVEMENTS (190TH ST TO I-405 ON/OFF RAMP)					
B1	1	LS	TRAFFIC CONTROL 7-10.1.1	\$	\$
B2	23,100	SF	LOCALIZED SUBGRADE REPAIRS (4" OF UNCLASSIFIED EXCAVATION; INSTALL 4" CMB) 302-5.10.2	\$	\$
B3	3,080	TON	3" ASPHALT CONCRETE (C2-PG 64-10) 302-5.9	\$	\$
B4	4,070	TON	4" ASPHALT CONCRETE (B- PG 64 -10) 302-5.9	\$	\$
B5	220	LF	REMOVE PCC CURB & GUTTER (HEIGHT AND WIDTH VARIES) 300-1.4	\$	\$
B6	220	LF	CONSTRUCT CURB OR CURB & GUTTER PER SPPWC STD PLAN 120-2 [TYPE: A1-6(150); A1-8(200); A2-6(150) OR A2-8(200)] OVER 8" CMB, INCLUDING RESTORATION OF 1-FOOT WIDE SLOT PATCH. MATCH EXISTING CURB HEIGHT AND GUTTER WIDTH 303-5.9	\$	\$
B7	390	LF	REMOVE PCC CURB (HEIGHT AND WIDTH VARIES) 300-1.4	\$	\$
B8	390	LF	CONSTRUCT MODIFIED CONCRETE CURB (C1-6) PER SPPWC PLAN 120-2 303-5.9	\$	\$
B9	154,500	SF	COLD MILL EXISTING ASPHALT CONCRETE PAVEMENT (DEPTH VARIES 5" TO 7" THICK) 302-5.2.6	\$	\$
B10	1,100	CY	UNCLASSIFIED EXCAVATION OF UNSUITABLE MATERIALS (DEPTH VARIES 0" TO 2" THICK) 300-2.2.1	\$	\$
B11	580	SF	REMOVE PCC DRIVEWAY 300-1.4	\$	\$
B12	580	SF	CONSTRUCT 6" THICK PCC DRIVEWAY ON 8" CMB PER CITY OF TORRANCE STD PLAN T108 303-5.9	\$	\$
LANDSCAPE/IRRIGATION (190TH ST TO I-405 ON/OFF RAMP)					
B13	1	LS	CLEARING AND GURBBING 300-1.4	\$	\$
B14	9,510	SF	REMOVE MEDIAN ASPHALT PAVING AND BASE 300-1.4	\$	\$
B15	4,060	SF	REMOVE MEDIAN CONCRETE PAVING AND BASE 300-1.4	\$	\$
B16	1	EA	REMOVE EXISTING CURB ACCESS RAMP, CURB/GUTTERAND SIDEWALK 300-1.4	\$	\$

Item No.	Approx. Qty	Unit of Measure	Item Description	Unit Price	Total Bid
B17	1	EA	CONSTRUCT NEW CORNER PCC CURB OR CURB AND GUTTER PER SPPWC STD. 120-2 [TYPE: A1-150(6); A1-200(8); A2-150(6) OR A2-200(8)] OVER 8" CMB AND 3.5" THICK CURB ACCESS RAMP CASE "A" PER SPPWC 111-4 WITH 36"X48" DETECTABLE WARNING SURFACE PANEL, ON 4" CMB INCLUDING RESTORATION OF 1-FOOT WIDE SLOT PATCH. CURB RAMP IS NOT MONOLITHIC WITH CURB OR CURB AND GUTTER. 303-5.9	\$	\$
B18	1,750	SF	REMOVE EXISTING SIDEWALK 300-1.4	\$	\$
B19	1,750	SF	CONSTRUCT 3.5" THICK PCC SIDEWALK OVER 4" CMB, OUTSIDE LIMITS OF CURB ACCESS RAMP 303-5.9	\$	\$
B20	1,010	SF	CONSTRUCT 3.5" THICK PCC SAFETY RIBBON/CURB RETURN/STRIP OVER 4" CMB 303-5.10.1	\$	\$
B21	1,310	LF	REDWOOD HEADER FOR TREE WELLS 308-3	\$	\$
B22	—	—	(NOT USED)		
B23	1	LS	IRRIGATION SYSTEM 308-8.1	\$	\$
B24	6,900	SF	IMPORT SOIL, SOIL AMENDMENT, AND FINISH GRADING (INCLUDING SOIL FERTILITY TEST) 308-8.1	\$	\$
B25	78	EA	SHRUB – TC (1 GALLON) 308-8.1	\$	\$
B26	55	EA	SHRUB – PP (1 GALLON) 308-8.1	\$	\$
B27	59	EA	SHRUB – RI (5 GALLON) 308-8.1	\$	\$
B28	32	EA	TREE (24" BOX) INCLUDING STAKES AND ROOT BARRIER 308-8.1	\$	\$
B29	2,390	SF	SHREDDED BARK MULCH 308-8.1	\$	\$
B30	4,300	SF	SOD 308-4.8.3	\$	\$
B31	11,070	SF	PRECAST CONCRETE PAVERS INCLUDING SAND BASE 305-5.10.1	\$	\$
B32	1,800	LF	PVC MOISTURE BARRIER SURROUNDING LANDSCAPED AREAS 308-8.1	\$	\$

Item No.	Approx. Qty	Unit of Measure	Item Description	Unit Price	Total Bid
B33	1	LS	PLANT ESTABLISHMENT 308-8.2	\$	\$
B34	1	LS	RELOCATE TRASH RECEPTACLE AS SHOWN ON PLANS 308-8.1	\$	\$
B35	1	LS	REMOVE EXSITING BUS STOP SIGN AND INSTALL NEW SIGN (FURNISHED BY CITY) AND NEW POST 56-2.06	\$	\$
B36	80	LF	4" SCHEDULE 40 PVC SLEEVE 308-8.1	\$	\$
B37	115	LF	4" WELDED STEEL IRRIGATION SLEEVE (JACK AND BORE UNDER STREET) 308-8.1	\$	\$
SIGNS, STRIPING AND PAVEMENT MARKINGS & MARKERS					
B38	4	EA	REMOVE EXISTING ILLUMINATED SIGN – FURNISH AND INSTALL NEW INTERNALLY ILLUMINATED STREET NAME SIGN ON TRAFFIC SIGNAL MAST ARMS AT 190 TH INTERSECTION 86-8.02	\$	\$
B39	8	EA	REMOVE EXISTING SIGN AND POST. FURNISH AND INSTALL NEW REGULATORY, WARNING, ADVISORY AND/OR GUIDE SIGN AND NEW POST. SIGN SHALL BE 3M DIAMOND GRADE CUBED WITH 1160 PROTECTIVE ANTI-GRAFFITI OVERLAY FILM AND MATCHED COMPONENTS SYSTEM WARRANTY (12 YEARS) ON .080 ALUMINUM 56-2.06	\$	\$
B40	111	EA	REMOVE EXISTING SIGN. FURNISH AND INSTALL NEW REGULATORY, WARNING, ADVISORY AND /OR GUIDE SIGN ON EXISTING POST, TRAFFIC SIGNAL POLE OR MAST ARM. SIGN SHALL BE 3M DIAMOND GRADE CUBED WITH 1160 PROTECTIVE ANTI-GRAFFITI OVERLAY FILM AND MATCHED COMPONENTS SYSTEM WARRANTY (12 YEARS) ON 0.080 ALUMINUM. 56-2.06	\$	\$
B41	3	EA	INSTALL TRANSIT BUS STOP SIGNS SUPPLIED BY CITY OF TORRANCE ON EXISTING POST OR BUS SHELTER 56-2.06	\$	\$
B42	14	EA	REMOVE EXISTING PEDESTRIANS INDICATION. FURNISH AND INSTALL NEW COUNTDOWN PEDESTRIAN INDICATION 86-8.02	\$	\$
B43	9	EA	FURNISH AND INSTALL OBJECT MARKERS AND POSTS 56-2.06		

Item No.	Approx. Qty	Unit of Measure	Item Description	Unit Price	Total Bid
B44	1	LS	FURNISH AND INSTALL NEW VIDEO DETECTION SYSTEM, COMPLETE IN PLACE, INCLUDING ALL WIRING AND DISCONNECT OF EXISTING PRIMARY DETECTORS LOOP AT 182 ND 86-8.02	\$	\$
B45	22	EA	TRAFFIC LOOP DETECTORS 86-8.02	\$	\$
B46	1	EA	FURNISH AND INSTALL TRAFFIC SIGNAL PULL BOX PER CALTRANS STANDARD PLAN ES-8A 86-8.02	\$	\$
B47	1	LS	STRIPPING, MARKINGS AND PAVEMENT MARKERS 84-2.06	\$	\$
STREET IMPROVEMENTS NORTH OF I-405 ON/OFF RAMP TO 182ND					
C1	1	LS	TRAFFIC CONTROL 7-10.1.1	\$	\$
C2	6,900	SF	LOCALIZED SUBGRADE REPAIRS (4" OF UNCLASSIFIED EXCAVATION; INSTALL 4" CMB) I-405S ON/OFF RAMPS TO 182 ND 302-5.10.2	\$	\$
C3	920	TON	3" ASPHALT CONCRETE (C2-PG 64-10) I-405S ON/OFF RAMPS TO 182 ND 302-5.9	\$	\$
C4	1,220	TON	4" ASPHALT CONCRETE (B-PG 64-10) I-405S ON/OFF RAMPS TO 182 ND 302-5.9	\$	\$
C5	100	SF	REMOVE EXISTING SIDEWALK 300-1.4	\$	\$
C6	100	SF	CONSTRUCT 3.5" THICK PCC SIDEWALK OVER 4" CMB 303-5.9	\$	\$
C7	46,000	SF	COLD MILL EXISTING ASPHALT CONCRETE PAVEMENT (DEPTH VARIES 5" TO 7" THICK) I-405S ON/OFF RAMPS TO 182 ND 302-5.2.6	\$	\$
C8	300	CY	UNCLASSIFIED EXCAVATION OF UNSUITABLE MATERIALS (DEPTH VARIES 0" TO 2" THICK) I-405S ON/OFF RAMPS TO 182 ND 300-2.2.1	\$	\$
C9	17,400	SF	COLD MILL EXISTING PAVEMENT (DEPTH =1.5" THICK) N/O 182 ND 302-5.2.6	\$	\$
C10	185	TON	1.5" ASPHALT CONCRETE (C2-PG 64-10) N/O 182 ND 303-5.9	\$	\$
MEDIAN HARDSCAPE UNDER I-405 OVERCROSSING					
D1	1	LS	CLEARING AND GRUBBING 300-1.4	\$	\$

Item No.	Approx. Qty	Unit of Measure	Item Description	Unit Price	Total Bid
D2	2,970	SF	REMOVE MEDIAN ASPHALT AND PAVING 300-1.4	\$	\$
D3	2,970	SF	PRECAST CONCRETE PAVERS INCLUDING SAND BASE 305-5.10.1	\$	\$

TOTAL BID PRICE \$ _____
(Figures)*

TOTAL BID PRICE: _____
(Words)*

***BID MAY BE REJECTED IF TOTAL IS NOT SHOWN IN FIGURES AND WORDS.**

B2013-50; FEDERAL PROJECT NO. HPLUL-5249(022)

The undersigned furthermore agrees to enter into and execute a contract, with necessary bonds, at the unit prices set forth herein and in case of default in executing such contract, with necessary bonds, the check or bond accompanying this bid and the money payable thereon shall be forfeited thereby to and remain the property of the City of Torrance.

The above unit prices include all work appurtenant to the various items as outlined in the Specifications and all work or expense required for the satisfactory completion of said items. In case of discrepancies between unit prices and totals, the unit prices shall govern.

The undersigned declares that it has carefully examined the Plans, Specifications, and Contract Documents, and has investigated the site of the work and is familiar with the conditions thereon.

Contractor _____

Date: _____ By: _____

Contractor's State License No: _____ Class _____

Address: _____

Phone No. _____

Fax No: _____

**ACKNOWLEDGMENT OF ADDENDA RECEIVED – B2013-50
FEDERAL PROJECT NO. HPLUL-5249(022)**

The Bidder shall acknowledge the receipt of addenda by placing an "X" by each addendum received.

Addendum No. 1 _____

Addendum No. 2 _____

Addendum No. 3 _____

Addendum No. 4 _____

Addendum No. 5 _____

Addendum No. 6 _____

Addendum No. 7 _____

If an addendum or addenda have been issued by the City and not noted above as being received by the Bidder, the Bidder's Submittal may be rejected.

Bidder's Signature

Date

CONTRACTOR'S AFFIDAVIT

STATE OF CALIFORNIA }
 }
COUNTY OF _____}

B2013-50

_____, being first duly sworn, deposes and says:

1. That he is the

Title

of _____
(Name of Partnership, Corporation, or Sole Proprietorship)

hereinafter called "Contractor," who has submitted to the City of Torrance a Bidder's Submittal for the Construction of Crenshaw Boulevard Rehabilitation T-22 (190th Street to 182nd Street); B2013-50, Federal Project No. HPLUL-5249(022);

2. That said Bidder's Submittal is genuine; that the same is not sham; that all statement of facts therein are true;
3. That such Bidder's Submittal was not made in the interest or behalf of any person, partnership, company, association, organization or corporation not named or disclosed;
4. That the Contractor did not, directly or indirectly, induce, solicit or agree with anyone else to submit a false or sham bid, to refrain from bidding, or to withdraw the bid, to raise or fix the bid price of the Contractor or anyone else, or to raise or fix any overhead, profit or cost element of the Contractor's price or the price of anyone else; and did not attempt to induce action prejudicial to the interest of the City of Torrance, or of any other bidder, or anyone else interested in the proposed contract;
5. That the Contractor has not in any manner sought by collusion to secure for itself an advantage over any other bidder or to induce action prejudicial to the interests of the City of Torrance, or of any other bidder or of anyone else interested in the proposed contract;
6. That the Contractor has not accepted any bid from any subcontractor or materialman through any bid depository, the bylaws, rules or regulations of which prohibit or prevent the Contractor from considering any bid from any subcontractor or materialman, which is not processed through said bid depository, or which prevent any subcontractor or materialman from bidding to any contractor who does not use the facilities of or accept bids from or through such bid depository;

CONTRACTOR'S AFFIDAVIT (CONTINUED)

7. That the Contractor did not, directly or indirectly, submit the Contractor's bid price or any breakdown thereof, or the contents thereof, or divulge information or data relative thereto, to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof, or to any individual or group of Individuals, except to the City of Torrance, or to any person or persons who have a partnership or other financial interest with said Contractor in its business.

Dated this _____ day of _____, 20____.

Subscribed and Sworn to
before me this _____ day
of _____, 20____.

(Contractor)

(Title)

Notary Public in and for said
County and State.
(Seal)

**BID BOND
B2013-50
FEDERAL PROJECT NO. HPLUL-5249(022)**

KNOW ALL MEN BY THESE PRESENTS: That we, _____

as principal, and _____

as sureties, are held and firmly bound unto the City of Torrance, State of California, in the penal sum of _____ dollars (\$_____), for the payment whereof we hereby bind ourselves, our successors, heirs, executors or administrators jointly and severally, firmly by these presents.

The condition of this obligation is such that, whereas the above bounded principal is about to file with and submit to the City of Torrance a Bidder's Submittal for the performance of certain work as required in the City of Torrance, Project No. B2013-50. Federal Project No. HPLUL-5249(022), said work being: the Crenshaw Boulevard Rehabilitation, T-22 (190th Street to 182nd Street) and in compliance with the Specifications therefor under an invitation of said City contained in a notice or advertisement for Bidders' Submittals; now if the Bidder's Submittal of the said principal shall be accepted and if the said work be thereupon awarded to the principal by said City and if the said principal shall enter into a contract with the said City in accordance with said Bidder's Submittal, or if the Bidder's Submittal of the said principal is rejected, then this bond shall be void and of no effect and otherwise in full force and effect.

WITNESS our hands this _____ day of _____, 20____.

Principal

Surety/Attorney-in-Fact

Signature

Name: _____
Local Address: _____
Phone No.: _____
Fax No.: _____

LIST OF SUBCONTRACTORS
B2013-50

The Bidder is required to fill in the following blanks in accordance with the provisions of the Subletting and Subcontracting Fair Practices Act (Chapter 2 of Division 5, Title 1 of the Government Code of the State of California). The contractor, sub recipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of Title 49 CFR (Code of Federal Regulations) part 26 in the award and administration of US DOT assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy, as the recipient deems appropriate. Each subcontract signed by the bidder must include this assurance.

Failure of the bidder to fulfill the requirements of the Special Provisions for submittals required to be furnished after bid opening, including but not limited to escrowed bid documents, where applicable, may subject the bidder to a determination of the bidder's responsibility in the event it is the apparent low bidder on a future public works contracts.

Name Under Which Subcontractor is Licensed: _____

Subcontractor's Address: _____

Specific Description of Sub-Contract: _____

License Number: _____ CA License Classification/Type: _____

Name Under Which Subcontractor is Licensed: _____

Subcontractor's Address: _____

Specific Description of Sub-Contract: _____

License Number: _____ CA License Classification/Type: _____

Name Under Which Subcontractor is Licensed: _____

Subcontractor's Address: _____

Specific Description of Sub-Contract: _____

License Number: _____ CA License Classification/Type: _____

Subcontractors listed must be properly licensed under the laws of the State of California for the type of work which they are to perform. Do not list alternate subcontractors for the same work.

REFERENCES
B2013-50

(Work similar in magnitude and degree of difficulty completed by Contractor within the past three [3] years.)

1. Name (Firm/Agency): _____
Address: _____
Contact Person: _____ Telephone No.: _____
Title of Project: _____
Project Location: _____
Date of Completion: _____ Contract Amount: \$ _____

2. Name (Firm/Agency): _____
Address: _____
Contact Person: _____ Telephone No.: _____
Title of Project: _____
Project Location: _____
Date of Completion: _____ Contract Amount: \$ _____

3. Name (Firm/Agency): _____
Address: _____
Contact Person: _____ Telephone No.: _____
Title of Project: _____
Project Location: _____
Date of Completion: _____ Contract Amount: \$ _____

4. Name (Firm/Agency): _____
Address: _____
Contact Person: _____ Telephone No.: _____
Title of Project: _____
Project Location: _____
Date of Completion: _____ Contract Amount: \$ _____

REFERENCES (CONTINUED) PAGE 2 OF 2

If Contractor has not performed work for the City of Torrance within the last five (5) years, list all work done within said five years (attach additional sheets if necessary). Note if work was done as subcontractor [include only subcontract amount]:

Work Description & Contract Amount	Agency	Date Completed

Contractor's License No.: _____ Class: _____

a. Date first obtained: _____ Expiration _____

b. Has License ever been suspended or revoked? _____

If yes, describe when and why: _____

c. Any current claims against License or Bond? _____

If yes, describe claims: _____

Principals in Company (List all – attach additional sheets if necessary):

<u>NAME</u>	<u>TITLE</u>	<u>LICENSE NO.</u> (If Applicable)
_____	_____	_____
_____	_____	_____
_____	_____	_____

VIOLATIONS OF FEDERAL, STATE OR LOCAL LAWS
B2013-50

1. Has your firm or its officers been assessed any penalties by an agency for noncompliance or violations of Federal, State or Local labor laws and/or business or licensing regulations within the past five (5) years relating to your construction projects?

Yes/No: _____ Federal/State: _____

If "yes," identify and describe, (including agency and status): _____

Have the penalties been paid? Yes/No: _____

2. Does your firm or its officers have any ongoing investigations by any public agency regarding violations of the State Labor Code, California Business and Professions Code or State Licensing Laws?

Yes/No: _____ Code/Laws: _____ Section/Article: _____

If "yes," identify and describe, (including agency and status): _____

NOTICE TO BIDDERS FEDERAL REQUIREMENTS

A bidder is required to submit the following 4 forms with its Bidder's Submittal:

- ☐ Equal Employment Opportunity Certification (p. C-22)
- ☐ Noncollusion Affidavit (p. C-23)
- ☐ Debarment and Suspension Certification (p. C-24)
- ☐ Nonlobbying Certification for Federal-Aid Contracts (p. C-25)

The three (3) lowest, responsive bidders will be required to submit the following form to the City's Public Works Department and within 4 business days after the bid opening. The three (3) lowest, responsive bidders shall be determined by the City of Torrance at the Bid Opening.

- ☐ Exhibit 15-G Local Agency Bidder DBE Commitment (Construction Contracts) (p. C-30)

Note: For Exhibit 15-G, a bidder is hereby notified by the City of Torrance that it must review EXHIBIT 10-I Notice to Proposers Disadvantaged Business Enterprise Information and be familiar with its requirements. The document can be downloaded from the Caltrans website at:
<http://www.dot.ca.gov/hq/LocalPrograms/lam/forms/lapmforms.htm>

Each bidder is required to submit written confirmation from each DBE stating that it is participating in the contract. Include that confirmation with the DBE Commitment form. A copy of a DBE's quote will serve as written confirmation that the DBE is participating in the contract.

If a bidder does not submit the DBE Commitment form and confirmation **within 4 business days after the bid opening**, the City of Torrance may determine your bid non-responsive.

If applicable, the following form must be submitted with the bid:

- ☐ Disclosure of Lobbying Activities (p. C-26)

If you are the successful bidder on this project, you will be requested to submit the following form to the City:

- ☐ "DBE Information – Good Faith Efforts," Exhibit 15-H (p. C-57)

The document can be downloaded from the Caltrans website at:
<http://www.dot.ca.gov/hq/LocalPrograms/lam/forms/lapmforms.htm>

At the end of construction, the selected contractor will be required to submit the following forms to the City:

☐ Exhibit 17-F Final Report – Utilization of Disadvantaged Businesses

The document can be downloaded from the Caltrans website at:
<http://www.dot.ca.gov/hq/LocalPrograms/lam/forms/lapmforms.htm>

☐ Exhibit 17-O Disadvantaged Business Enterprises (DBE) Certification Status Change

The document can be downloaded from the Caltrans website at:
<http://www.dot.ca.gov/hq/LocalPrograms/lam/forms/lapmforms.htm>

(THE BIDDER'S SIGNATURE ON THE BIDDER'S SUBMITTAL
SUBMITTED WITH ITS BID SHALL CONSTITUTE
AN ENDORSEMENT AND EXECUTION OF THIS CERTIFICATION)

EQUAL EMPLOYMENT OPPORTUNITY CERTIFICATION

The bidder _____,
proposed subcontractor _____, hereby certifies that he has
_____, has not _____, participated in a previous contract or subcontract subject to the
equal opportunity clauses, as required by Executive Orders 10925, 11114, or 11246, and that,
where required, he has filed with the Joint Reporting Committee, the Director of the Office of
Federal Contract Compliance, a Federal Government contracting or administering agency, or the
former President's Committee on Equal Employment Opportunity, all reports due under the
applicable filing requirements.

Note: The above certification is required by the Equal Employment Opportunity Regulations of the
Secretary of Labor (41 CFR 60-1.7(b) (1)), and must be submitted by bidders and proposed
subcontractors only in connection with contracts and subcontracts, which are subject to the
equal opportunity clause. Contracts and subcontracts which are exempt from the equal
opportunity clause are set forth in 41 CFR 60-1.5. (Generally only contracts or
subcontracts of \$10,000 or under are exempt.)

Currently, Standard Form 100 (EEO-1) is the only report required by the Executive Orders
or their implementing regulations.

Proposed prime CONTRACTORS and subcontractors who have participated in a previous
contract or subcontract subject to the Executive Orders and have not filed the required
reports should note that 41 CFR 60-1.7(b) (1) prevents the award of contracts and
subcontracts unless such CONTRACTOR submits a report covering the delinquent period
or such other period specified by the Federal Highway Administration or by the Director,
Office of Federal Contract Compliance, U.S. Department of Labor.

Note: Providing false information may result in criminal prosecution or administrative sanctions

Exhibit 12-E, Attachment C

(THE BIDDER'S SIGNATURE ON THE BIDDER'S SUBMITTAL
SUBMITTED WITH ITS BID SHALL CONSTITUTE
AN ENDORSEMENT AND EXECUTION OF THIS CERTIFICATION)

NONCOLLUSION AFFIDAVIT
(Title 23 United States Code Section 112 and
Public Contract Code Section 7106)

To the CITY of TORRANCE, DEPARTMENT OF PUBLIC WORKS.

In conformance with Title 23 United States Code Section 112 and Public Contract Code 7106 the bidder declares that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

Note: The above Noncollusion Affidavit is part of the Bidder's Submittal. Signing this Bidder's Submittal on the signature portion thereof shall also constitute signature of this Noncollusion Affidavit. Bidders are cautioned that making a false certification may subject the certifier to criminal prosecution.

Note: Providing false information may result in criminal prosecution or administrative sanctions

Exhibit 12-E, Attachment D

(THE BIDDER'S SIGNATURE ON THE BIDDER'S SUBMITTAL
SUBMITTED WITH ITS BID SHALL CONSTITUTE
AN ENDORSEMENT AND EXECUTION OF THIS CERTIFICATION)

DEBARMENT AND SUSPENSION CERTIFICATION

(Title 49, Code of Federal Regulations, Part 29)

The bidder, under penalty of perjury, certifies that, except as noted below, he/she or any other person associated therewith in the capacity of owner, partner, director, officer, manager:

- is not currently under suspension, debarment, voluntary exclusion, or determination of ineligibility by any Federal AGENCY;
- has not been suspended, debarred, voluntarily excluded or determined ineligible by any Federal AGENCY within the past 3 years;
- does not have a proposed debarment pending; and
- has not been indicted, convicted, or had a civil judgment rendered against it by a court of competent jurisdiction in any matter involving fraud or official misconduct within the past 3 years.

If there are any exceptions to this certification, insert the exceptions in the following space.

Exceptions will not necessarily result in denial of award, but will be considered in determining bidder responsibility. For any exception noted above, indicate below to whom it applies, initiating AGENCY, and dates of action.

Note: Providing false information may result in criminal prosecution or administrative sanctions. The above certification is part of the Proposal. Signing this Bidder's Submittal on the signature portion thereof shall also constitute signature of this Certification.

Exhibit 12-E, Attachment E

(THE BIDDER'S SIGNATURE ON THE BIDDER'S SUBMITTAL
SUBMITTED WITH ITS BID SHALL CONSTITUTE
AN ENDORSEMENT AND EXECUTION OF THIS CERTIFICATION)

NON-LOBBYING CERTIFICATION FOR FEDERAL-AID CONTRACTS

The prospective participant certifies, by signing and submitting this Bidder's Submittal, to the best of his or her knowledge and belief, that:

- (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal AGENCY, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal AGENCY, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure of Lobbying Activities," in conformance with its instructions.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

The prospective participant also agrees by submitting his or her Bidder's Submittal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such subrecipients shall certify and disclose accordingly.

Note: Providing false information may result in criminal prosecution or administrative sanctions

Exhibit 12-E, Attachment

DISCLOSURE OF LOBBYING ACTIVITIES

COMPLETE THIS FORM TO DISCLOSE LOBBYING ACTIVITIES PURSUANT TO 31 U.S.C. 1352

1. Type of Federal Action:

☐

- a. contract
- b. grant
- c. cooperative agreement
- d. loan
- e. loan guarantee
- f. loan insurance

2. Status of Federal Action:

☐

- a. bid/offer/application
- b. initial award
- c. post-award

3. Report Type:

☐

- a. initial
- b. material change

For Material Change Only:

year quarter _____
date of last report _____

4. Name and Address of Reporting Entity

☐

Prime

☐

Subawardee

Tier _____, if known

5. If Reporting Entity in No. 4 is Subawardee, Enter Name and Address of Prime:

Congressional District, if known

Congressional District, if known

6. Federal Department/Agency:

7. Federal Program Name/Description:

CFDA Number, if applicable _____

8. Federal Action Number, if known:

9. Award Amount, if known:

10. a. Name and Address of Lobby Entity (If individual, last name, first name, MI)

b. Individuals Performing Services (including address if different from No. 10a) (last name, first name, MI)

(attach Continuation Sheet(s) if necessary)

11. Amount of Payment (check all that apply)

\$ _____ ☐ actual ☐ planned

13. Type of Payment (check all that apply)

☐
☐
☐
☐
☐
☐

- a. retainer
- b. one-time fee
- c. commission
- d. contingent fee
- e. deferred
- f. other, specify _____

12. Form of Payment (check all that apply):

☐
☐

- a. cash
- b. in-kind; specify: nature _____
value _____

14. Brief Description of Services Performed or to be performed and Date(s) of Service, including officer(s), employee(s), or member(s) contacted, for Payment Indicated in Item 11:

(attach Continuation Sheet(s) if necessary)

15. Continuation Sheet(s) attached: Yes ☐ No ☐

16. Information requested through this form is authorized by Title 31 U.S.C. Section 1352. This disclosure of lobbying reliance was placed by the tier above when his transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to Congress semiannually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

Signature: _____

Print Name: _____

Title: _____

Telephone No.: _____ Date: _____

Authorized for Local Reproduction
Standard Form - LLL

Federal Use Only:

INSTRUCTIONS FOR COMPLETION OF SF-LLL, DISCLOSURE OF LOBBYING ACTIVITIES

This disclosure form shall be completed by the reporting entity, whether subawardee or prime federal recipient, at the initiation or receipt of covered federal action or a material change to previous filing pursuant to title 31 U.S.C. Section 1352. The filing of a form is required for such payment or agreement to make payment to lobbying entity for influencing or attempting to influence an officer or employee of any agency, a Member of Congress an officer or employee of Congress or an employee of a Member of Congress in connection with a covered federal action. Attach a continuation sheet for additional information if the space on the form is inadequate. Complete all items that apply for both the initial filing and material change report. Refer to the implementing guidance published by the Office of Management and Budget for additional information.

1. Identify the type of covered federal action for which lobbying activity is and/or has been secured to influence, the outcome of a covered federal action.
2. Identify the status of the covered federal action.
3. Identify the appropriate classification of this report. If this is a follow-up report caused by a material change to the information previously reported, enter the year and quarter in which the change occurred. Enter the date of the last, previously submitted report by this reporting entity for this covered federal action.
4. Enter the full name, address, city, State and zip code of the reporting entity. Include Congressional District if known. Check the appropriate classification of the reporting entity that designates if it is or expects to be a prime or subaward recipient. Identify the tier of the subawardee, e.g., the first subawardee of the prime is the first tier. Subawards include but are not limited to subcontracts, subgrants and contract awards under grants.
5. If the organization filing the report in Item 4 checks "Subawardee" then enter the full name, address, city, State and zip code of the prime federal recipient. Include Congressional District, if known.
6. Enter the name of the federal agency making the award or loan commitment. Include at least one organization level below agency name, if known. For example, Department of Transportation, United States Coast Guard.
7. Enter the federal program name or description for the covered federal action (item 1). If known, enter the full Catalog of Federal Domestic Assistance (CFDA) number for grants, cooperative agreements, loans and loan commitments.
8. Enter the most appropriate federal identifying number available for the federal action identification in item 1 (e.g., Request for Proposal (RFP) number, Invitation for Bid (IFB) number, grant announcement number, the contract grant or loan award number, the application/proposal control number assigned by the federal agency). Include prefixes, e.g., "RFP-DE-90-001."
9. For a covered federal action where there has been an award or loan commitment by the Federal agency, enter the federal amount of the award/loan commitments for the prime entity identified in item 4 or 5.

10. (a) Enter the full name, address, city, State and zip code of the lobbying entity engaged by the reporting entity identified in item 4 to influenced the covered federal action. (b) Enter the full names of the individual(s) performing services and include full address if different from 10 (a). Enter Last Name, First Name and Middle Initial (MI).
11. Enter the amount of compensation paid or reasonably expected to be paid by the reporting entity (item 4) to the lobbying entity (item 10). Indicate whether the payment has been made (actual) or will be made (planned). Check all boxes that apply. If this is a material change report, enter the cumulative amount of payment made or planned to be made.
12. Check the appropriate box(es). Check all boxes that apply. If payment is made through an in-kind contribution, specify the nature and value of the in-kind payment.
13. Check the appropriate box(es). Check all boxes that apply. If other, specify nature.
14. Provide a specific and detailed description of the services that the lobbyist has performed or will be expected to perform and the date(s) of any services rendered. Include all preparatory and related activity not just time spent in actual contact with federal officials. Identify the federal officer(s) or employee(s) contacted or the officer(s) employee(s) or Member(s) of Congress that were contacted.
15. Check whether or not a continuation sheet(s) is attached.
16. The certifying official shall sign and date the form, print his/her name title and telephone number.

Public reporting burden for this collection of information is estimated to average 30 minutes per response, including time for reviewing instruction, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0046), Washington, D.C. 20503.

SF-LLL-Instructions Rev. 06-04-90«ENDIF»

FEDERAL LOBBYING RESTRICTIONS

Section 1352, Title 1352, Title 31, United States Code prohibits Federal funds from being expended by the recipient or any lower tier subrecipient of a Federal-aid contract to pay for any person for influencing or attempting to influence a federal agency or congress in connection with the awarding of any federal-aid contract, the making of any federal grant or loan, or the entering into of any cooperative agreement.

If any funds other than federal funds have been paid for the same purposes in connection with this federal-aid contract, the recipient shall submit an executed certification and, if required, submit a completed disclosure form as part of the bid documents.

A certification for federal-aid contracts regarding payment of funds to lobby Congress or a federal agency is included in the Proposal. Standard Form - LLL, "Disclosure of Lobbying Activities," with instructions for completion of the Standard Form is also included in the Proposal. Signing the Proposal shall constitute signature of the Certification.

The above referenced certification and disclosure of lobbying activities shall be included in each subcontract and any lower-tier contracts exceeding \$100,000. All disclosure forms, but not certifications, shall be forwarded from tier to tier until received by the Engineer.

The Contractor, subcontractors and any lower-tier contractors shall file a disclosure form at the end of each calendar quarter in which there occurs any event that requires disclosure or that materially affects the accuracy of the information contained in any disclosure form previously filed by the Contractor, subcontractors and any lower-tier contractors. An event that materially affects the accuracy of the information reported includes:

- (1) A cumulative increase of \$25,000 or more in the amount paid or expected to be paid for influencing or attempting to influence a covered federal action; or
- (2) A change in the person(s) or individual(s) influencing or attempting to influence a covered federal action; or
- (3) A change in the officer(s), employee(s), or Member(s) contacted to influence or attempt to influence a covered Federal Action.

Exhibit 15-G Local Agency Bidder DBE Commitment (Construction Contracts)

NOTE: PLEASE REFER TO INSTRUCTIONS ON THE REVERSE SIDE OF THIS FORM

LOCAL AGENCY: CITY OF TORRANCE

LOCATION: CRENSHAW BLVD (182ND ST TO 190TH ST)

PROJECT DESCRIPTION: _____

TOTAL CONTRACT AMOUNT: \$ _____

BID DATE: _____

BIDDER'S NAME: _____

CONTRACT DBE GOAL: _____

CONTRACT ITEM NO.	ITEM OF WORK AND DESCRIPTION OR SERVICES TO BE SUBCONTRACTED OR MATERIALS TO BE PROVIDED (or contracted if the bidder is a DBE)	DBE CERT NO. AND EXPIRATION DATE	NAME OF EACH DBE (Must be certified on the date bids are opened - include DBE address and phone number)	DOLLAR AMOUNT
				DBE

For Local Agency to Complete:

Local Agency Contract Number: _____

Federal-aid Project Number: _____

Federal Share: _____

Contract Award Date: _____

Local Agency certifies that all DBE certifications have been verified and information is complete and accurate.

Print Name
Local Agency Representative

Signature

Date

(Area Code) Telephone Number: _____

Total Claimed DBE
Participation

\$ _____

%

Signature of Bidder

Date (Area Code) Tel. No.

Person to Contact (Please Type or Print)

Local Agency Bidder DBE Commitment (Construction Contracts)
(Rev 6/26/09)

- Distribution:**
- (1) Copy – Fax or scan a copy to the Caltrans District Local Assistance Engineer (DLAE) within 30 days of contract execution. Failure to send a copy to the DLAE within 30 days of contract execution may result in de-obligation of funds for this project.
 - (2) Copy – Include in award package to Caltrans District Local Assistance
 - (3) Original – Local agency files

**INSTRUCTIONS - LOCAL AGENCY BIDDER
DBE COMMITMENT (CONSTRUCTION CONTRACTS)**

ALL BIDDERS:

PLEASE NOTE: This information may be submitted with your bid. If it is not, and you are the apparent low bidder or the second or third low bidder, it must be submitted and received as specified in the Special Provisions. Failure to submit the required DBE commitment will be grounds for finding the bid nonresponsive

The form requires specific information regarding the construction contract: Local Agency, Location, Project Description, Total Contract Amount, Bid Date, Bidder's Name, and Contract DBE Goal.

The form has a column for the Contract Item Number and Item of Work and Description or Services to be Subcontracted or Materials to be provided by DBEs. Prime contractors shall indicate all work to be performed by DBEs including, if the prime is a DBE, work performed by its own forces, if a DBE. The DBE shall provide a certification number to the Contractor and expiration date. Enter the DBE prime's and subcontractors' certification numbers. The form has a column for the Names of DBE contractors to perform the work (who must be certified on the date bids are opened and include the DBE address and phone number).

IMPORTANT: Identify **all** DBE firms participating in the project regardless of tier. Names of the First-Tier DBE Subcontractors and their respective item(s) of work listed should be consistent, where applicable, with the names and items of work in the "List of Subcontractors" submitted with your bid.

There is a column for the DBE participation dollar amount. Enter the Total Claimed DBE Participation dollars and percentage amount of items of work submitted with your bid pursuant to the Special Provisions. (If 100% of item is not to be performed or furnished by the DBE, describe exact portion of time to be performed or furnished by the DBE.) See Section "Disadvantaged Business Enterprise (DBE)," of the Special Provisions (construction contracts), to determine how to count the participation of DBE firms.

Exhibit 15-G must be signed and dated by the person bidding. Also list a phone number in the space provided and print the name of the person to contact.

Local agencies should complete the Local Agency Contract Award, Federal-aid Project Number, Federal Share, Contract Award Date fields and verify that all information is complete and accurate before signing and filing.

DISADVANTAGED BUSINESS ENTERPRISES (DBE)

Under 49 CFR 26.13(b):

The contractor, sub recipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate.

Take necessary and reasonable steps to ensure that DBEs have opportunity to participate in the contract (49 CFR 26).

To ensure equal participation of DBEs provided in 49 CFR 26.5, the Agency shows a goal for DBEs.

Make work available to DBEs and select work parts consistent with available DBE subcontractors and suppliers.

Meet the DBE goal shown elsewhere in these special provisions or demonstrate that you made adequate good faith efforts to meet this goal.

It is your responsibility to verify that the DBE firm is certified as DBE at date of bid opening. For a list of DBEs certified by the California Unified Certification Program, go to:

http://www.dot.ca.gov/hq/bep/find_certified.htm

All DBE participation will count toward the California Department of Transportation's federally mandated statewide overall DBE goal.

Credit for materials or supplies you purchase from DBEs counts towards the goal in the following manner:

1. 100 percent counts if the materials or supplies are obtained from a DBE manufacturer.
2. 60 percent counts if the materials or supplies are obtained from a DBE regular dealer.
3. Only fees, commissions, and charges for assistance in the procurement and delivery of materials or supplies count if obtained from a DBE that is neither a manufacturer or regular dealer. 49 CFR 26.55 defines "manufacturer" and "regular dealer."

You receive credit towards the goal if you employ a DBE trucking company that performs a commercially useful function as defined in 49 CFR 26.55(d)(1) through (4) and (6).

DBE Commitment Submittal

Submit Local Agency Bidder DBE Commitment (Construction Contracts), Exhibit 15-G, form, included in the Bid book. If the form is not submitted with the bid, remove the form from the Bid book before submitting your bid.

If the DBE Commitment form is not submitted with the bid, the apparent low bidder, the 2nd low bidder, and the 3rd low bidder must complete and submit the DBE Commitment form to the

Agency. DBE Commitment form must be received by the Agency no later than 4:00 p.m. on the 4th business day after bid opening.

Other bidders do not need to submit the DBE Commitment form unless the Agency requests it. If the Agency requests you to submit a DBE Commitment form, submit the completed form within 4 business days of the request.

Submit written confirmation from each DBE stating that it is participating in the contract. Include confirmation with the DBE Commitment form. A copy of a DBE's quote will serve as written confirmation that the DBE is participating in the contract.

If you do not submit the DBE Commitment form within the specified time, the Agency finds your bid nonresponsive.

Good Faith Efforts Submittal

If you have not met the DBE goal, complete and submit the "DBE Information - Good Faith Efforts", Exhibit 15-H, form with the bid showing that you made adequate good faith efforts to meet the goal. Only good faith efforts directed towards obtaining participation by DBEs will be considered. If good faith efforts documentation is not submitted with the bid, it must be received by the Agency no later than 4:00 p.m. on the 4th business day after bid opening.

If your DBE Commitment form shows that you have met the DBE goal or if you are required to submit the DBE Commitment form, you must also submit good faith efforts documentation within the specified time to protect your eligibility for award of the contract in the event the Agency finds that the DBE goal has not been met.

Good faith efforts documentation must include the following information and supporting documents, as necessary:

1. Items of work you have made available to DBE firms. Identify those items of work you might otherwise perform with its own forces and those items that have been broken down into economically feasible units to facilitate DBE participation. For each item listed, show the dollar value and percentage of the total contract. It is your responsibility to demonstrate that sufficient work to meet the goal was made available to DBE firms.
2. Names of certified DBEs and dates on which they were solicited to bid on the project. Include the items of work offered. Describe the methods used for following up initial solicitations to determine with certainty if the DBEs were interested, and the dates of the follow-up. Attach supporting documents such as copies of letters, memos, facsimiles sent, telephone logs, telephone billing statements, and other evidence of solicitation. You are reminded to solicit certified DBEs through all reasonable and available means and provide sufficient time to allow DBEs to respond.
3. Name of selected firm and its status as a DBE for each item of work made available. Include name, address, and telephone number of each DBE that provided a quote and their price quote. If the firm selected for the item is not a DBE, provide the reasons for the selection.
4. Name and date of each publication in which you requested DBE participation for the project. Attach copies of the published advertisements.

5. Names of agencies and dates on which they were contacted to provide assistance in contacting, recruiting, and using DBE firms. If the agencies were contacted in writing, provide copies of supporting documents.
6. List of efforts made to provide interested DBEs with adequate information about the plans, specifications, and requirements of the contract to assist them in responding to a solicitation. If you have provided information, identify the name of the DBE assisted, the nature of the information provided, and date of contact. Provide copies of supporting documents, as appropriate.
7. List of efforts made to assist interested DBEs in obtaining bonding, lines of credit, insurance, necessary equipment, supplies, and materials, excluding supplies and equipment that the DBE subcontractor purchases or leases from the prime contractor or its affiliate. If such assistance is provided by you, identify the name of the DBE assisted, nature of the assistance offered, and date assistance was provided. Provide copies of supporting documents, as appropriate.
8. Any additional data to support demonstration of good faith efforts.

The Agency may consider DBE commitments of the 2nd and 3rd bidders when determining whether the low bidder made good faith efforts to meet the DBE goal.

AWARD AND EXECUTION OF CONTRACT

An Exhibit 15-G Local Agency Bidder DBE Commitment (Construction Contracts) form is included in the Bid book to be executed by the successful bidder. Even if no DBE participation will be reported, the successful bidder must execute and return the form.

The successful bidder's Exhibit 15-G Local Agency Bidder DBE Commitment (Construction Contracts) form should include the names, addresses and phone numbers of DBE firms that will participate, with a complete description of work or supplies to be provided by each, and the dollar value of each DBE transaction. When 100 percent of a contract item of work is not to be performed or furnished by a DBE, a description of the exact portion of that work to be performed or furnished by that DBE should be included in the DBE information, including the planned location of that work. A successful bidder certified as a DBE should describe the work it has committed to performing with its own forces as well as any other work that it has committed to be performed by DBE subcontractors, suppliers and trucking companies.

The successful bidder is encouraged to provide written confirmation from each DBE that the DBE is participating in the contract. A copy of a DBE's quote will serve as written confirmation that the DBE is participating in the contract. If a DBE is participating as a joint venture partner, the successful bidder is encouraged to submit a copy of the joint venture agreement.

The Exhibit 15-G Local Agency Bidder DBE Commitment (Construction Contracts) form shall be completed and returned to the Agency by the successful bidder with the executed contract and contract bonds.

LABOR NONDISCRIMINATION

Attention is directed to the following Notice that is required by Chapter 5 of Division 4 of Title 2, California Code of Regulations.

**NOTICE OF REQUIREMENT FOR NONDISCRIMINATION PROGRAM
(GOV. CODE, SECTION 12990)**

Your attention is called to the "Nondiscrimination Clause", set forth in Section 7-1.01A(4), "Labor Nondiscrimination," of the Standard Specifications, which is applicable to all nonexempt state contracts and subcontracts, and to the "Standard California Nondiscrimination Construction Contract Specifications" set forth therein. The Specifications are applicable to all nonexempt state construction contracts and subcontracts of \$5,000 or more.

BUY AMERICA REQUIREMENTS

Attention is directed to the "Buy America" requirements of the Title 23 United States Code, Section 313 and the regulations adopted pursuant thereto. In accordance with said law and regulations, all manufacturing processes for steel and iron materials furnished for incorporation into the work on this project shall occur in the United States; with the exception that pig iron and processed, pelletized and reduced iron ore manufactured outside of the United States may be used in the domestic manufacturing process for such steel and iron materials. The application of coatings, such as epoxy coating, galvanizing, painting, and any other coating that protects or enhances the value of such steel or iron materials shall be considered a manufacturing process subject to the "Buy America" requirements.

A Certificate of Compliance, conforming to the provisions in Section 6-1.07, Certificates of Compliance, of the Standard Specifications, shall be furnished for steel and iron materials. The certificates, in addition to certifying that the materials comply with the specifications, shall also specifically certify that all manufacturing processes for the materials occurred in the United States, except for the exceptions allowed herein. The requirements imposed by said law and regulations do not prevent a minimal use of foreign steel and iron materials if the total combined cost of such materials used does not exceed one-tenth of one percent (0.1%) of the total contract cost or \$2,500, whichever is greater. The Contractor shall furnish the Engineer acceptable documentation of the quantity and value of any foreign steel and iron prior to incorporating such materials into the work.

SUBCONTRACTOR AND DBE RECORDS

Use each DBE subcontractor as listed on the List of Subcontractors form and the Local Agency Bidder DBE Commitment (Construction Contracts), Exhibit 15-G, forms unless you receive authorization for a substitution.

The Agency requests the Contractor to:

1. Notify the Engineer of any changes to its anticipated DBE participation
2. Provide this notification before starting the affected work

The CONTRACTOR shall maintain records showing the name and business address of each first-tier subcontractor. The records shall also show the name and business address of every DBE subcontractor, DBE vendor of materials and DBE trucking company, regardless of tier. The records shall show the date of payment and the total dollar figure paid to all of these firms. DBE prime contractors shall also show the date of work performed by their own forces along with the corresponding dollar value of the work.

If you are a DBE contractor, include the date of work performed by your own forces and the corresponding value of the work

Prior to the fifteenth of each month, the CONTRACTOR shall submit the Monthly DBE Trucking Verification form to the Engineer. For each delinquent monthly form, the amount of \$5,000 will be withheld from payment until a satisfactory and accurate form is submitted.

If a DBE is decertified before completing its work, the DBE must notify the Engineer in writing of the decertification date. If a business becomes a certified DBE before completing its work, the business must notify the Engineer in writing of the certification date. On work completion and within 30 days of contract acceptance, the Contractor shall complete and submit to the Engineer a Disadvantaged Business Enterprises (DBE) Certification Status Change, Exhibit 17-O, form.

Upon completion of the contract, a summary of these records shall be prepared on "Final Report-Utilization of Disadvantaged Business Enterprises (DBE), First Tier Subcontractors – Exhibit 17-F" Form CEM-2402(F) and certified correct by the CONTRACTOR or the CONTRACTOR'S authorized representative, and shall be furnished to the Engineer. The form shall be furnished to the Engineer within 90 days from the date of contract acceptance. The amount of \$10,000 will be withheld from payment until a satisfactory form is submitted.

PERFORMANCE OF DBE

DBEs must perform work or supply materials as listed in the Local Agency Bidder DBE Commitment (Construction Contracts), Exhibit 15-G, included in the Bid.

Do not terminate or substitute a listed DBE for convenience and perform the work with your own forces or obtain materials from other sources without authorization from the Agency.

The Agency authorizes a request to use other forces or sources of materials if it shows any of the following justifications:

1. Listed DBE fails or refuses to execute a written contract based on plans and specifications for the project.
2. You stipulate a bond is a condition of executing the subcontract and the listed DBE fails to meet your bond requirements.
3. Work requires a contractor's license and listed DBE does not have a valid license under Contractors License Law.
4. Listed DBE fails or refuses to perform the work or furnish the listed materials.
5. Listed DBE's work is unsatisfactory and not in compliance with the contract.
6. Listed DBE is ineligible to work on the project because of suspension or debarment.
7. Listed UDBE becomes bankrupt or insolvent.
8. Listed DBE voluntarily withdraws with written notice from the Contract
9. Listed DBE is ineligible to receive credit for the type of work required
10. Listed DBE owner dies or becomes disabled resulting in the inability to perform the work on the Contract
11. Agency determines other documented good cause

Notify the original DBE of your intent to use other forces or material sources and provide the reasons. Provide the DBE with 5 days to respond to your notice and advise you and the Agency of the reasons why the use of other forces or sources of materials should not occur. Your request to use other forces or material sources must include:

1. 1 or more of the reasons listed in the preceding paragraph
2. Notices from you to the DBE regarding the request
3. Notices from the DBEs to you regarding the request

If a listed DBE is terminated, make good faith efforts to find another DBE to substitute for the original DBE. The substitute DBE must perform at least the same amount of work as the original DBE under the contract to the extent needed to meet the DBE goal.

The substitute DBE must be certified as a DBE at the time of request for substitution. Unless the Agency authorizes (1) a request to use other forces or sources of materials or (2) a good faith effort for a substitution of a terminated DBE, the Agency does not pay for work listed on the Local Agency Bidder DBE Commitment (Construction Contracts), Exhibit 15-G, form unless it is performed or supplied by the listed DBE or an authorized substitute.

SUBCONTRACTING

No subcontract releases the Contractor from the contract or relieves the Contractor of their responsibility for a subcontractor's work.

If the Contractor violates Pub Cont Code § 4100 et seq., the City of Torrance may exercise the remedies provided under Pub Cont Code § 4110. The City of Torrance may refer the violation to the Contractors State License Board as provided under Pub Cont Code § 4111.

The Contractor shall perform work equaling at least 30 percent of the value of the original total bid with the Contractor's own employees and equipment, owned or rented, with or without operators.

Each subcontract must comply with the contract. Each subcontractor must have an active and valid State contractor's license with a classification appropriate for the work to be performed (Bus & Prof Code, § 7000 et seq.).

Submit copies of subcontracts upon request by the Engineer. Before subcontracted work starts, submit a Subcontracting Request form.

Do not use a debarred contractor; a current list of debarred contractors is available at the Department of Industrial Relations' Web site.

Upon request by the Engineer, immediately remove and not again use a subcontractor who fails to prosecute the work satisfactorily.

Each subcontract and any lower tier subcontract that may in turn be made shall include the "Required Contract Provisions Federal-Aid Construction Contracts" in Section 14 of these special provisions. Noncompliance shall be corrected. Payment for subcontracted work involved will be withheld from progress payments due, or to become due, until correction is made. Failure to comply may result in termination of the contract.

PROMPT PROGRESS PAYMENT TO SUBCONTRACTORS

A prime contractor or subcontractor shall pay any subcontractor not later than 10 days of receipt of each progress payment in accordance with the provision in Section 7108.5 of the California Business and Professions Code concerning prompt payment to subcontractors. The 10 days is applicable unless a longer period is agreed to in writing. Any delay or postponement of payment over 30 days may take place only for good cause and with the agency's prior written approval. Any violation of Section 7108.5 shall subject the violating contractor or subcontractor to the penalties, sanction and other remedies of that section. This requirement shall not be construed to limit or impair any contractual, administrative, or judicial remedies otherwise available to the contractor or subcontractor in the event of a dispute involving late payment or nonpayment by the prime contractor, deficient subcontract performance, or noncompliance by a subcontractor.

PROMPT PAYMENT OF FUNDS WITHHELD TO SUBCONTRACTORS

The agency shall hold retainage from the prime contractor and shall make prompt and regular incremental acceptances of portions, as determined by the agency, of the contract work, and pay retainage to the prime contractor based on these acceptances. The prime contractor, or subcontractor, shall return all monies withheld in retention from a subcontractor within 30 days after receiving payment for work satisfactorily completed and accepted including incremental acceptances of portions of the contract work by the agency. Federal law (49CFR26.29) requires that any delay or postponement of payment over 30 days may take place only for good cause and with the agency's prior written approval. Any violation of this provision shall subject the violating prime contractor or subcontractor to the penalties, sanctions and other remedies specified in Section 7108.5 of the Business and Professions Code. These requirements shall not be construed to limit or impair any contractual, administrative, or judicial remedies otherwise available to the prime contractor or subcontractor in the event of a dispute involving late payment or nonpayment by the prime contractor, deficient subcontract performance, or noncompliance by a subcontractor.

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Attachment A Section 14. Federal Requirements for Federal-Aid Construction Projects

GENERAL.—The work herein proposed will be financed in whole or in part with Federal funds, and therefore all of the statutes, rules and regulations promulgated by the Federal Government and applicable to work financed in whole or in part with Federal funds will apply to such work. The "Required Contract Provisions, Federal-Aid Construction Contracts, "Form FHWA 1273, are included in this Section 14. Whenever in said required contract provisions references are made to "SHA contracting officer," "SHA resident engineer," or "authorized representative of the SHA," such references shall be construed to mean "Engineer" as defined in Section 1-1.18 of the Standard Specifications.

PERFORMANCE OF PREVIOUS CONTRACT.—In addition to the provisions in Section II, "Nondiscrimination," and Section VII, "Subletting or Assigning the Contract," of the required contract provisions, the Contractor shall comply with the following:

The bidder shall execute the CERTIFICATION WITH REGARD TO THE PERFORMANCE OF PREVIOUS CONTRACTS OR SUBCONTRACTS SUBJECT TO THE EQUAL OPPORTUNITY CLAUSE AND THE FILING OF REQUIRED REPORTS located in the proposal. No request for subletting or assigning any portion of the contract in excess of \$10,000 will be considered under the provisions of Section VII of the required contract provisions unless such request is accompanied by the CERTIFICATION referred to above, executed by the proposed subcontractor.

NON-COLLUSION PROVISION.—The provisions in this section are applicable to all contracts except contracts for Federal Aid Secondary projects.

Title 23, United States Code, Section 112, requires as a condition precedent to approval by the Federal Highway Administrator of the contract for this work that each bidder file a sworn statement executed by, or on behalf of, the person, firm, association, or corporation to whom such contract is to be awarded, certifying that such person, firm, association, or corporation has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with the submitted bid. A form to make the non-collusion affidavit statement required by Section 112 as a certification under penalty of perjury rather than as a sworn statement as permitted by 28, USC, Sec. 1746, is included in the proposal.

PARTICIPATION BY DISADVANTAGED BUSINESS ENTERPRISES IN SUBCONTRACTING.—Part 26, Title 49, Code of Federal Regulations applies to this Federal-aid project. Pertinent sections of said Code are incorporated in part or in its entirety within other sections of these special provisions.

Schedule B—Information for Determining Joint Venture Eligibility

(This form need not be filled in if all joint venture firms are DBE owned.)

1. Name of joint venture _____

2. Address of joint venture _____

3. Phone number of joint venture _____

4. Identify the firms which comprise the joint venture.

(The DBE partner must complete Schedule A.) _____

a. Describe the role of the DBE firm in the joint venture.

b. Describe very briefly the experience and business qualifications of each non-DBE joint venturer: _____

5. Nature of the joint venture's business _____

6. Provide a copy of the joint venture agreement.

7. What is the claimed percentage of DBE ownership? ____

8. Ownership of joint venture: (This need not be filled in if described in the joint venture agreement, provided by question 6.).

- a. Profit and loss sharing.
- b. Capital contributions, including equipment.
- c. Other applicable ownership interests.

9. Control of and participation in this contract. Identify by name, race, sex, and "firm" those individuals (and their titles) who are responsible for day-to-day management and policy decision making, including, but not limited to, those with prime responsibility for:

a. Financial decisions _____

b. Management decisions, such as:

1. Estimating _____

2. Marketing and sales _____

3. Hiring and firing of management personnel _____

4. Purchasing of major items or supplies _____

c. Supervision of field operations _____

Note.—If, after filing this Schedule B and before the completion of the joint venture's work on the contract covered by this regulation, there is any significant change in the information submitted, the joint venture must inform the grantee, either directly or through the prime contractor if the joint venture is a subcontractor.

Affidavit

"The undersigned swear that the foregoing statements are correct and include all material information necessary to identify and explain the terms and operation of our joint venture and the intended participation by each joint venturer in the undertaking. Further, the undersigned covenant and agree to provide to grantee current, complete and accurate information regarding actual joint venture work and the payment therefor and any proposed changes in any of the joint venture arrangements and to permit the audit and examination of the books, records and files of the joint venture, or those of each joint venturer relevant to the joint venture, by authorized representatives of the grantee or the Federal funding agency. Any material misrepresentation will be grounds for terminating any contract which may be awarded and for initiating action under Federal or State laws concerning false statements."

.....
Name of Firm	Name of Firm
.....
Signature	Signature
.....
Name	Name
.....
Title	Title
.....
Date	Date

Date _____

State of _____

County of _____

On this ____ day of _____, 19 __, before me appeared (Name) _____, to me personally known, who, being duly sworn, did execute the foregoing affidavit, and did state that he or she was properly authorized by (Name of firm) _____ to execute the affidavit and did so as his or her free act and deed.

Notary Public _____

Commission expires _____

[Seal]

Date _____

State of _____

County of _____

On this ____ day of _____, 19 __, before me appeared (Name) _____ to me personally known, who, being duly sworn, did execute the foregoing affidavit, and did state that he or she was properly authorized by (Name of firm) _____ to execute the affidavit and did so as his or her free act and deed.

Notary Public _____

Commission expires _____

[Seal]

Attachment B Required Contract Provisions Federal-Aid Construction Contracts

FHWA-1273 -- Revised May 1, 2012

REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS

- I. General
- II. Nondiscrimination
- III. Nonsegregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Compliance with Governmentwide Suspension and Debarment Requirements
- XI. Certification Regarding Use of Contract Funds for Lobbying

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services). The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in bid proposal or request for proposal documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

II. NONDISCRIMINATION

The provisions of this section related to 23 CFR Part 230 are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR 230, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall

constitute the EEO and specific affirmative action standards for the contractor's project activities under

this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract.

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An

Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the

geographical area of contract performance. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and

reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurance Required by 49 CFR 26.13(b):

a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.

b. The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the contracting agency deems appropriate.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on [Form FHWA-1391](#). The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, or national origin cannot result. The contractor may neither require such segregated use

by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. Davis-Bacon and Related Act Provisions

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.d. of this section; also, regular contributions

made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b. (1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is utilized in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and basic records

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the

laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of

trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b.(1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency..

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the

“Statement of Compliance” required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the

apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the

Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

6. Subcontracts. The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility.

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

The following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to

the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.

3. Withholding for unpaid wages and liquidated damages. The FHWA or the contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2.) of this section.

4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term "perform work with its own organization" refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions:

- (1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
- (2) the prime contractor remains responsible for the quality of the work of the leased employees;
- (3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
- (4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C.3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to

be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

By submission of this bid/proposal or the execution of this contract, or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.
2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200.

1. Instructions for Certification – First Tier Participants:

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies

available to the Federal Government, the department or agency may terminate this transaction for cause or default.

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency;

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

2. Instructions for Certification - Lower Tier Participants:

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as

subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000 (49 CFR 20).

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

**ATTACHMENT A - EMPLOYMENT AND MATERIALS
PREFERENCE FOR APPALACHIAN DEVELOPMENT
HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS
ROAD CONTRACTS**

This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

Female and Minority Goals

To comply with Section II, "Nondiscrimination," of "Required Contract Provisions Federal-Aid Construction Contracts," the following female and minority utilization goals for Federal-aid construction contracts and subcontracts that exceed \$10,000.

The nationwide goal for female utilization is 6.9 percent.

The goals for minority utilization [45 Fed Reg 65984 (10/3/1980)] are as follows:

Minority Utilization Goals		Goal (Percent)
Economic Area		
174	Redding CA: Non-SMSA Counties: CA Lassen; CA Modoc; CA Plumas; CA Shasta; CA Siskiyou; CA Tehama	6.8
175	Eureka, CA Non-SMSA Counties: CA Del Norte; CA Humboldt; CA Trinity	6.6
176	San Francisco-Oakland-San Jose, CA: SMSA Counties: 7120 Salinas-Seaside-Monterey, CA CA Monterey 7360 San Francisco-Oakland CA Alameda; CA Contra Costa; CA Marin; CA San Francisco; CA San Mateo 7400 San Jose, CA CA Santa Clara, CA 7485 Santa Cruz, CA CA Santa Cruz 7500 Santa Rosa CA Sonoma 8720 Vallejo-Fairfield-Napa, CA CA Napa; CA Solano Non-SMSA Counties: CA Lake; CA Mendocino; CA San Benito	28.9 25.6 19.6 14.9 9.1 17.1 23.2
177	Sacramento, CA: SMSA Counties: 6920 Sacramento, CA CA Placer; CA Sacramento; CA Yolo Non-SMSA Counties CA Butte; CA Colusa; CA El Dorado; CA Glenn; CA Nevada; CA Sierra; CA Sutter; CA Yuba	16.1 14.3
178	Stockton-Modesto, CA: SMSA Counties: 5170 Modesto, CA CA Stanislaus 8120 Stockton, CA CA San Joaquin Non-SMSA Counties CA Alpine; CA Amador; CA Calaveras; CA Mariposa; CA Merced; CA Toulumne	12.3 24.3 19.8
179	Fresno-Bakersfield, CA SMSA Counties: 0680 Bakersfield, CA CA Kern 2840 Fresno, CA CA Fresno Non-SMSA Counties:	19.1 26.1 23.6

	CA Kings; CA Madera; CA Tulare	
180	Los Angeles, CA: SMSA Counties: 0360 Anaheim-Santa Ana-Garden Grove, CA CA Orange 4480 Los Angeles-Long Beach, CA CA Los Angeles 6000 Oxnard-Simi Valley-Ventura, CA CA Ventura 6780 Riverside-San Bernardino-Ontario, CA CA Riverside; CA San Bernardino 7480 Santa Barbara-Santa Maria-Lompoc, CA CA Santa Barbara Non-SMSA Counties CA Inyo; CA Mono; CA San Luis Obispo	11.9 28.3 21.5 19.0 19.7 24.6
181	San Diego, CA: SMSA Counties 7320 San Diego, CA CA San Diego Non-SMSA Counties CA Imperial	16.9 18.2

For each July during which work is performed under the contract, you and each non-material-supplier subcontractor with a subcontract of \$10,000 or more must complete Form FHWA PR-1391 (Appendix C to 23 CFR 230). Submit the forms by August 15.

Training

This section applies if a number of trainees or apprentices is specified in the special provisions.

As part of your equal opportunity affirmative action program, provide on-the-job training to develop full journeymen in the types of trades or job classifications involved.

You have primary responsibility for meeting this training requirement.

If you subcontract a contract part, determine how many trainees or apprentices are to be trained by the subcontractor.

Include these training requirements in your subcontract.

Where feasible, 25 percent of apprentices or trainees in each occupation must be in their 1st year of apprenticeship or training.

Distribute the number of apprentices or trainees among the work classifications on the basis of your needs and the availability of journeymen in the various classifications within a reasonable recruitment area.

Before starting work, submit to the City/County of _____:

1. Number of apprentices or trainees to be trained for each classification
2. Training program to be used
3. Training starting date for each classification

Obtain the City/County of _____'s approval for this submitted information before you start work. The City/County of _____ credits you for each apprentice or trainee you employ on the work who is currently enrolled or becomes enrolled in an approved program.

The primary objective of this section is to train and upgrade minorities and women toward journeymen status. Make every effort to enroll minority and women apprentices or trainees, such as conducting systematic and direct recruitment through public and private sources likely to yield minority and women apprentices or trainees, to the extent they are available within a reasonable recruitment area. Show that you have made the efforts. In making these efforts, do not discriminate against any applicant for training.

Do not employ as an apprentice or trainee an employee:

1. In any classification in which the employee has successfully completed a training course leading to journeyman status or in which the employee has been employed as a journeyman
2. Who is not registered in a program approved by the US Department of Labor, Bureau of Apprenticeship and Training

Ask the employee if the employee has successfully completed a training course leading to journeyman status or has been employed as a journeyman. Your records must show the employee's answers to the questions.

In your training program, establish the minimum length and training type for each classification. The City/County of _____ and FHWA approves a program if one of the following is met:

1. It is calculated to:
 - 1.1. Meet the your equal employment opportunity responsibilities
 - 1.2. Qualify the average apprentice or trainee for journeyman status in the classification involved by the end of the training period
2. It is registered with the U.S. Department of Labor, Bureau of Apprenticeship and Training and it is administered in a way consistent with the equal employment responsibilities of federal-aid highway construction contracts

Obtain the State's approval for your training program before you start work involving the classification covered by the program.

Provide training in the construction crafts, not in clerk-typist or secretarial-type positions. Training is allowed in lower level management positions such as office engineers, estimators, and timekeepers if the training is oriented toward construction applications. Training is allowed in the laborer classification if significant and meaningful training is provided and approved by the division office. Off-site training is allowed if the training is an integral part of an approved training program and does not make up a significant part of the overall training.

The City/County of _____ reimburses you 80 cents per hour of training given an employee on this contract under an approved training program:

1. For on-site training
2. For off-site training if the apprentice or trainee is currently employed on a federal-aid project and you do at least one of the following:
 - 2.1. Contribute to the cost of the training
 - 2.2. Provide the instruction to the apprentice or trainee
 - 2.3. Pay the apprentice's or trainee's wages during the off-site training period
3. If you comply with this section.

Each apprentice or trainee must:

1. Begin training on the project as soon as feasible after the start of work involving the apprentice's or trainee's skill
2. Remain on the project as long as training opportunities exist in the apprentice's or trainee's work classification or until the apprentice or trainee has completed the training program

Furnish the apprentice or trainee:

1. Copy of the program you will comply with in providing the training
2. Certification showing the type and length of training satisfactorily completed

Maintain records and submit reports documenting your performance under this section.

EXHIBIT 15-H DBE INFORMATION —GOOD FAITH EFFORTS
DBE INFORMATION - GOOD FAITH EFFORTS

Federal-aid Project No. HPLUL-5249(022) Bid Opening Date December 11, 2013

The City of Torrance established a Disadvantaged Business Enterprise (DBE) goal of 14% for this project. The information provided herein shows that a good faith effort was made.

Lowest, second lowest and third lowest bidders shall submit the following information to document adequate good faith efforts. Bidders should submit the following information even if the "Local Agency Bidder DBE Commitment" form indicates that the bidder has met the DBE goal. This will protect the bidder's eligibility for award of the contract if the administering agency determines that the bidder failed to meet the goal for various reasons, e.g., a DBE firm was not certified at bid opening, or the bidder made a mathematical error.

Submittal of only the "Local Agency Bidder DBE Commitment" form may not provide sufficient documentation to demonstrate that adequate good faith efforts were made.

The following items are listed in the Section entitled "Submission of DBE Commitment" of the Special Provisions:

- A. The names and dates of each publication in which a request for DBE participation for this project was placed by the bidder (please attach copies of advertisements or proofs of publication):

<u>Publications</u>	<u>Dates of Advertisement</u>
_____	_____
_____	_____
_____	_____

- B. The names and dates of written notices sent to certified DBEs soliciting bids for this project and the dates and methods used for following up initial solicitations to determine with certainty whether the DBEs were interested (please attach copies of solicitations, telephone records, fax confirmations, etc.):

<u>Names of DBEs Solicited</u>	<u>Date of Initial Solicitation</u>	<u>Follow Up Methods and Dates</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

- C. The items of work which the bidder made available to DBE firms including, where appropriate, any breaking down of the contract work items (including those items normally performed by the bidder with its own forces) into economically feasible units to facilitate DBE participation. It is the bidder's responsibility to demonstrate that sufficient work to facilitate DBE participation was made available to DBE firms.

Items of Work	Bidder Normally Performs Item (Y/N)	Breakdown of Items	Amount (\$)	Percentage Of Contract

- D. The names, addresses and phone numbers of rejected DBE firms, the reasons for the bidder's rejection of the DBEs, the firms selected for that work (please attach copies of quotes from the firms involved), and the price difference for each DBE if the selected firm is not a DBE:

Names, addresses and phone numbers of rejected DBEs and the reasons for the bidder's rejection of the DBEs:

Names, addresses and phone numbers of firms selected for the work above:

- E. Efforts made to assist interested DBEs in obtaining bonding, lines of credit or insurance, and any technical assistance or information related to the plans, specifications and requirements for the work which was provided to DBEs:

- F. Efforts made to assist interested DBEs in obtaining necessary equipment, supplies, materials or related assistance or services, excluding supplies and equipment the DBE subcontractor purchases or leases from the prime contractor or its affiliate:

- G. The names of agencies, organizations or groups contacted to provide assistance in contacting, recruiting and using DBE firms (please attach copies of requests to agencies and any responses received, i.e., lists, Internet page download, etc.):

Name of Agency/Organization	Method/Date of Contact	Results

- H. Any additional data to support a demonstration of good faith efforts (use additional sheets if necessary):

NOTE: USE ADDITIONAL SHEETS OF PAPER IF NECESSARY.

SECTION D

**DOCUMENTS TO BE COMPLETED
AND DELIVERED TO CITY PRIOR
TO AWARD OF CONTRAC**

**PERFORMANCE BOND
B2013-50**

KNOW ALL MEN BY THESE PRESENTS:

That we, _____ as Principal(s) and _____ a corporation, incorporated, organized, and existing under the laws of the State of _____, and authorized to execute bonds and undertakings and to do a general surety business in the State of California, as Surety, are jointly and severally held and firmly bound unto the City of Torrance, a municipal corporation, located in the County of Los Angeles, State of California, in the full and just sum of: _____ Dollars (\$ _____), lawful money of the United States of America, for the payment of which sum, well and truly to be made, we bind ourselves and our respective heirs, executors, administrators, representative, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that: **WHEREAS**, said Principal(s) have/has entered into, or are/is about to enter into, a certain written contract or agreement, dated as of the _____ day of _____, 20____, with the said City of Torrance for the Construction of **Crenshaw Boulevard Rehabilitation T-22 (190th Street to 182nd Street), B2013-50**; Federal Project No. HPLUL-5249(022), all as is more specifically set forth in said contract or agreement, a full, true and correct copy of which is hereunto attached, and hereby referred to and by this reference incorporated herein and made a part hereof;

NOW, THEREFORE, if the said Principal(s) shall faithfully and well and truly do, perform and complete, or cause to be done, performed and complete, each and all of the covenants, terms, conditions, requirements, obligations, acts and things, to be met, done or performed by said Principal(s), including any guarantee period as set forth in, or required by, said contract or agreement, all at and within the time or times, and in the manner as therein specified and contemplated, then this bond and obligation shall be null and void; otherwise it shall be and remain in full force, virtue and effect.

The said Surety, for value received, hereby stipulates and agrees that no amendment, change, extension of time, alteration or addition to said contract or agreement, or of any feature or item or items of performance required therein or thereunder, shall in any manner affect its obligations on or under this bond; and said Surety does hereby waive notice of any such amendment, change, extension of time, alteration, or addition to said contract or agreement, and of any feature or item or items of performance required therein or thereunder.

PERFORMANCE BOND (CONTINUED);

B2013-50

In the event any suit, action or proceedings is instituted to recover on this bond or obligation, said Surety will pay, and does hereby agree to pay, as attorney's fees for said City, such sum as the Court in any such suit, action or proceeding may adjudge reasonable.

EXECUTED, SEALED AND DATED this _____ day of _____, 20____.

CORPORATE SEAL

PRINCIPAL(S):

BY _____

BY _____

CORPORATE SEAL

SURETY:

BY _____

**LABOR AND MATERIAL BOND
B2013-50**

KNOW ALL MEN BY THESE PRESENTS:

That we, _____
As _____ Principal(s) _____ and
_____ a corporation,
incorporated, organized, and existing under the laws of the State of _____, and
authorized to execute bonds and undertakings and to do a general surety business in the
State of California, as Surety, are jointly and severally held and firmly bound unto:

- (a) The State of California for the use and benefit of the State Treasurer, as ex-officio Treasurer and custodian of the Unemployment Fund of said State; and
- (b) The City of Torrance, California; and
- (c) Any and all persons who do or perform or who did or performed work or labor upon or in connection with the work or improvement referred to in the contract or agreement hereinafter mentioned; and
- (d) Any and all materialmen, persons, companies, firms, association, or corporations, supplying or furnishing any materials, provisions, provender, transportation, appliances or power, or other supplies used in, upon, for or about or in connection with the performance of the work or improvement contracted to be executed, done, made or performed under said contract or agreement; and
- (e) Any and all persons, companies, firms, associations, or corporations furnishing, renting, or hiring teams, equipment, implements or machinery for, in connection with, or contributing to, said work to be done or improvement to be made under said contract or agreement; and
- (f) Any and all persons, companies, firms, associations, or corporations who supply both work and materials;

and whose claim has not been paid by said Principal(s), in full and just sum of _____ Dollars (\$_____), lawful money of the United States of America, for the payment of which will and truly to be made, said Principal(s) and said Surety do hereby bind themselves and their respective heirs, executors, administrators, representatives, successors and assigns, jointly and severally, firmly by these presents.

LABOR AND MATERIAL BOND (CONTINUED)

THE CONDITION OF THE FOREGOING OBLIGATION IS SUCH, THAT: WHEREAS, said Principal(s) have/has entered into or are/is about to enter into a certain written contract or agreement, dated as of the _____ day of _____ 20 ____, with the City of Torrance for the Construction of **Crenshaw Boulevard Rehabilitation T-22 (190th Street to 182nd Street); B2013-50**, Federal Project No. HPLUL-5249(022), all as is more specifically set forth in said contract or agreement, a full, true and correct copy of which is hereunto attached, and hereby referred to and by this reference incorporated herein and made a part hereof;

NOW, THEREFORE, if the said Principal(s) (or any of his/her, its, or their subcontractors) under said contract or agreement fails or fail to pay:

- (1) For any materials, provisions, provender, transportation, appliances, or power, or other supplies; or
- (2) For the hire of any teams, equipment, implements, or machinery; or
- (3) For any work or labor; supplies, furnished, provided, used, done or performed in, upon, for or about or in connection with the said work or improvement; or
- (4) For amounts due under the Unemployment Insurance Act of the State of California with respect to such work or improvement;

the Surety on this bond will pay the same in an amount not exceeding the sum hereinabove specified in this bond; and, also, in case suit is brought upon this bond, said Surety will (and does hereby agree to) pay a reasonable attorney's fee, to be fixed and taxed as costs, and included in the judgment therein rendered.

This bond shall (and it is hereby made to) insure to the benefit of any and all persons entitled to file claims under Section 1192.1 of the Code of Civil Procedure of the State of California, so as to give a right of action to them or their assigns in any suit brought upon this bond, all as contemplated under the provisions of Section 4205 of the Government Code, and of Chapter 1 of Title 4 of Part 3 of the Code of Civil Procedure, of the State of California.

This bond is executed and filed in connection with said contract or agreement hereunto attached to comply with each and all of the provisions of the laws of the State of California above mentioned or referred to, and of all amendments thereto, and the obligors so intend and do hereby bind themselves accordingly.

LABOR AND MATERIAL BOND (CONTINUED)

The said Surety, for value received, hereby stipulates and agrees that no amendment, change, extension of time, alteration, or addition to said contract or agreement, or of any feature or item or items of performance required therein or thereunder, shall in any manner affect its obligations on or under this bond; and said Surety does hereby waive notice of any such amendment, change, extension of time, alteration, or addition to said contract or agreement, and of any feature or item or items of performance required therein or thereunder.

EXECUTED, SEALED AND DATED this _____ day of _____, 20 ____

CORPORATE SEAL

PRINCIPAL:

BY _____

CORPORATE SEAL

SURETY:

BY _____

PUBLIC WORKS AGREEMENT

This PUBLIC WORKS AGREEMENT ("Agreement") is made and entered into as of _____, 20____ (the "Effective Date"), by and between the CITY OF TORRANCE, a municipal corporation ("CITY"), and _____ ("CONTRACTOR").

RECITALS:

- A. The CITY wishes to retain the services of an experienced and qualified CONTRACTOR to construct Crenshaw Boulevard Rehabilitation T-22 (190th Street to 182nd Street);
- B. In order to obtain the desired services, The CITY has circulated a Notice Inviting Bids for the construction of Crenshaw Boulevard Rehabilitation T-22 (190th Street to 182nd Street), Notice Inviting Bids No. B2013-50; HPLUL-5249(022) (the "NIB"); and
- C. CONTRACTOR has submitted a Bid (the "Bid") in response to the NIB. CONTRACTOR represents that it is qualified to perform those services requested in the Plans and Specifications. Based upon its review of all Bids submitted in response to the NIB, The CITY is willing to award the contract to CONTRACTOR.

AGREEMENT:

1. SERVICES TO BE PERFORMED BY CONTRACTOR

CONTRACTOR will provide the services and install those materials listed in the Plans and Specifications, which are on file in the Public Works Department. The NIB and the Plans and Specifications are made a part of this Agreement. A copy of the Bid is attached as Exhibit A.

2. TERM

Unless earlier terminated in accordance with Paragraph 4 below, this Agreement will continue in full force and effect for one year from the Effective Date.

3. COMPENSATION

A. CONTRACTOR's Fee.

For services rendered pursuant to this Agreement, CONTRACTOR will be paid in accordance with CONTRACTOR's Bid; provided, however, that in no event will the total amount of money paid the CONTRACTOR, for services initially contemplated by this Agreement, exceed the sum of \$_____ ("Agreement Sum"), unless otherwise first approved in writing by the CITY.

B. Schedule of Payment.

Provided that the CONTRACTOR is not in default under the terms of this Agreement, upon presentation of an invoice, CONTRACTOR will be paid monthly, within 30 days after the date of the monthly invoice.

4. TERMINATION OF AGREEMENT

A. Termination by CITY for Convenience.

1. CITY may, at any time, terminate the Agreement for CITY's convenience and without cause.
2. Upon receipt of written notice from CITY of such termination for CITY's convenience, CONTRACTOR will:
 - a) cease operations as directed by CITY in the notice;
 - b) take actions necessary, or that CITY may direct, for the protection preservation of the work; and
 - c) except for work directed to be performed prior to the effective date of termination stated in the notice, terminate all existing subcontracts and purchase orders and enter into no further subcontracts and purchase orders.
3. In case of such termination for CITY's convenience, CONTRACTOR will be entitled to receive payment for work executed; and costs incurred by reason of such termination, along with reasonable overhead and profit on the work not executed.

B. Termination for Cause.

1. If either party fails to perform any term, covenant or condition in this Agreement and that failure continues for 15 calendar days after the nondefaulting party gives the defaulting party notice of the failure to perform, this Agreement may be terminated for cause; provided, however, that if during the notice period the defaulting party has promptly commenced and continues diligent efforts to remedy the default, the defaulting party will have such additional time as is reasonably necessary to remedy the default.
2. In the event this Agreement is terminated for cause by the default of the CONTRACTOR, the CITY may, at the expense of the CONTRACTOR and its surety, complete this Agreement or cause it to be completed. Any check or bond delivered to the CITY in connection with this Agreement, and the money payable thereon, will be forfeited to and remain the property of the CITY. All moneys due the CONTRACTOR under the terms of this Agreement will be retained by the CITY, but the retention will not release the CONTRACTOR and its surety from liability for the default. Under these circumstances, however, the CONTRACTOR and its surety will be credited with the amount of money retained, toward any amount by which the cost of completion exceeds the Agreement Sum and any amount authorized for extra services.
3. Termination for cause will not affect or terminate any of the rights of the CITY as against the CONTRACTOR or its surety then existing, or which may thereafter accrue because of the default; this provision is in addition to all other rights and remedies available to the CITY under law.

C. Termination for Breach of Law.

In the event the CONTRACTOR or any of its officers, directors, shareholders, employees, agents, subsidiaries or affiliates is convicted (i) of a criminal offense as an

incident to obtaining or attempting to obtain a public or private contract or subcontract, or in the performance of a contract or subcontract; (ii) under state or federal statutes of embezzlement, theft, forgery, bribery, falsification or destruction of records, receiving stolen property, or any other offense indicating a lack of business integrity or business honesty which currently, seriously, and directly affects responsibility as a public consultant or contractor; (iii) under state or federal antitrust statutes arising out of the submission of Bidder's Submittal; or (iv) of violation of Paragraph 19 of this Agreement; or for any other cause the CITY determines to be so serious and compelling as to affect CONTRACTOR's responsibility as a public consultant or contractor, including but not limited to, debarment by another governmental agency, then the CITY reserves the unilateral right to terminate this Agreement or to impose such other sanctions (which may include financial sanctions, temporary suspensions or any other condition deemed appropriate short of termination) as it deems proper. The CITY will not take action until CONTRACTOR has been given notice and an opportunity to present evidence in mitigation.

5. FORCE MAJEURE

If any party fails to perform its obligations because of strikes, lockouts, labor disputes, embargoes, acts of God, inability to obtain labor or materials or reasonable substitutes for labor or materials, governmental restrictions, governmental regulations, governmental controls, judicial orders, enemy or hostile governmental action, civil commotion, fire or other casualty, or other causes beyond the reasonable control of the party obligated to perform, then that party's performance shall be excused for a period equal to the period of such cause for failure to perform.

6. RETENTION OF FUNDS

CONTRACTOR authorizes the CITY to deduct from any amount payable to CONTRACTOR (whether or not arising out of this Agreement) any amounts the payment of which may be in dispute or that are necessary to compensate the CITY for any losses, costs, liabilities, or damages suffered by the CITY, and all amounts for which the CITY may be liable to third parties, by reason of CONTRACTOR's negligent acts or omissions or willful misconduct in performing or failing to perform CONTRACTOR's obligations under this Agreement. In the event that any claim is made by a third party, the amount or validity of which is disputed by CONTRACTOR, or any indebtedness exists that appears to be the basis for a claim of lien, the CITY may withhold from any payment due, without liability for interest because of the withholding, an amount sufficient to cover the claim. The failure of the CITY to exercise the right to deduct or to withhold will not, however, affect the obligations of CONTRACTOR to insure, indemnify, and protect the CITY as elsewhere provided in this Agreement.

7. THE CITY'S REPRESENTATIVE

The Public Works Director is designated as the "City Representative," authorized to act in its behalf with respect to the work and services specified in this Agreement and to make all decisions in connection with this Agreement. Whenever approval, directions, or other actions are required by the CITY under this Agreement, those actions will be taken by the City Representative, unless otherwise stated. The City Manager has the right to designate another City Representative at any time, by providing notice to CONTRACTOR.

8. CONTRACTOR REPRESENTATIVE(S)

The following principal(s) of CONTRACTOR are designated as being the principal(s) and representative(s) of CONTRACTOR authorized to act in its behalf with respect to the work specified in this Agreement and make all decisions in connection with this Agreement:

9. INDEPENDENT CONTRACTOR

The CONTRACTOR is, and at all times will remain as to the CITY, a wholly independent contractor. Neither the CITY nor any of its agents will have control over the conduct of the CONTRACTOR or any of the CONTRACTOR's employees, except as otherwise set forth in this Agreement. The CONTRACTOR may not, at any time or in any manner, represent that it or any of its agents or employees are in any manner agents or employees of the CITY.

10. BUSINESS LICENSE

The CONTRACTOR must obtain a City business license prior to the start of work under this Agreement, unless CONTRACTOR is qualified for an exemption.

11. OTHER LICENSES AND PERMITS

CONTRACTOR warrants that it has all professional, contracting and other permits and licenses required to undertake the work contemplated by this Agreement.

12. FAMILIARITY WITH WORK

By executing this Agreement, CONTRACTOR warrants that CONTRACTOR (a) has thoroughly investigated and considered the scope of services to be performed, (b) has carefully considered how the services should be performed, and (c) fully understands the facilities, difficulties and restrictions attending performance of the services under this Agreement. If the services involve work upon any site, CONTRACTOR warrants that CONTRACTOR has or will investigate the site and is or will be fully acquainted with the conditions there existing, prior to commencement of services set forth in this Agreement. Should CONTRACTOR discover any latent or unknown conditions that will materially affect the performance of the services set forth in this Agreement, CONTRACTOR must immediately inform the CITY of that fact and may not proceed except at CONTRACTOR's risk until written instructions are received from the CITY.

13. CARE OF WORK

CONTRACTOR must adopt reasonable methods during the life of the Agreement to furnish continuous protection to the work, and the equipment, materials, papers, documents, plans, studies and other components to prevent losses or damages, and will be responsible for all damages, to persons or property, until acceptance of the work by the CITY, except those losses or damages as may be caused by the CITY's own negligence.

14. CONTRACTOR'S ACCOUNTING RECORDS; OTHER PROJECT RECORDS

Records of the CONTRACTOR's time pertaining to the project, and records of accounts between the CITY and the CONTRACTOR, will be kept on a generally recognized accounting basis. CONTRACTOR will also maintain all other records, including without limitation specifications, drawings, progress reports and the like, relating to the project. All records will be available to the CITY during normal working hours. CONTRACTOR will maintain these records for three years after final payment.

15. INDEMNIFICATION

CONTRACTOR will indemnify, defend, and hold harmless CITY, the City Council, each member thereof, present and future, its officers, agents and employees from and against any and all liability, expenses, including defense costs and legal fees, and claims for damages whatsoever, including, but not limited to, those arising from breach of contract, bodily injury, death, personal injury, property damage, loss of use, or property loss however the same may be caused and regardless of the responsibility for negligence. The obligation to indemnify, defend and hold harmless includes, but is not limited to, any liability or expense, including defense costs and legal fees, arising from the negligent acts or omissions, or willful misconduct of CONTRACTOR, its officers, employees, agents, subcontractors or vendors. It is further agreed, CONTRACTOR's obligations to indemnify, defend and hold harmless will apply even in the event of concurrent negligence on the part of CITY, the City Council, each member thereof, present and future, or its officers, agents and employees, except for liability resulting solely from the negligence or willful misconduct of CITY, its officers, employees or agents. Payment by CITY is not a condition precedent to enforcement of this indemnity. In the event of any dispute between CONTRACTOR and CITY, as to whether liability arises from the sole negligence of the CITY or its officers, employees, agents, subcontractors or vendors, CONTRACTOR will be obligated to pay for CITY's defense until such time as a final judgment has been entered adjudicating the CITY as solely negligent. CONTRACTOR will not be entitled in the event of such a determination to any reimbursement of defense costs including but not limited to attorney's fees, expert fees and costs of litigation.

16. NON-LIABILITY OF THE CITY'S OFFICERS AND EMPLOYEES

No officer or employee of the CITY will be personally liable to CONTRACTOR, in the event of any default or breach by the CITY or for any amount that may become due to CONTRACTOR.

17. INSURANCE

- A. CONTRACTOR must maintain at its sole expense the following insurance, which will be full coverage not subject to self insurance provisions:
 - 1. Automobile Liability, including owned, non-owned and hired vehicles, with at least the following limits of liability:
 - a. Combined single limits of \$2,000,000 per occurrence.
 - 2. General Liability including coverage for premises, products and completed operations, independent contractors, personal injury and contractual obligations with combined single limits of coverage of at least \$3,000,000 per occurrence, with an annual aggregate of no less than \$5,000,000.

3. Workers' Compensation with limits as required by the State of California and Employers Liability with limits of at least \$1,000,000.
- B. The insurance provided by CONTRACTOR will be primary and non-contributory.
- C. The CITY of Torrance, the City Council and each member thereof, members of boards and commissions, every officer, agent, official, employee and volunteer must be named as additional insureds under the automobile and general liability policies.
- D. CONTRACTOR must provide certificates of insurance and/or endorsements to the City Clerk of the City of Torrance before the commencement of work.
- E. Each insurance policy required by this Paragraph must contain a provision that no termination, cancellation or change of coverage can be made without thirty days notice to the CITY.
- F. CONTRACTOR must include all subcontractors as insureds under its policies or must furnish separate certificates and endorsements for each subcontractor. All coverage for subcontractors will be subject to all of the requirements of this Paragraph 17.

18. SUFFICIENCY OF INSURERS

Insurance required by this Agreement will be satisfactory only if issued by companies admitted to do business in California, rated "B+" or better in the most recent edition of Best's Key Rating Guide, and only if they are of a financial category Class VII or better, unless these requirements are waived by the Risk Manager of the CITY ("Risk Manager") due to unique circumstances. In the event the Risk Manager determines that the work or services to be performed under this Agreement creates an increased or decreased risk of loss to the CITY, the CONTRACTOR agrees that the minimum limits of any insurance policies and/or the performance bond required by this Agreement may be changed accordingly upon receipt of written notice from the Risk Manager; provided that CONTRACTOR will have the right to appeal a determination of increased coverage by the Risk Manager to the City Council of the CITY within 10 days of receipt of notice from the Risk Manager.

19. CONFLICT OF INTEREST

- A. No officer or employee of the CITY may have any financial interest, direct or indirect, in this Agreement, nor may any officer or employee participate in any decision relating to the Agreement that effects the officer or employee's financial interest or the financial interest of any corporation, partnership or association in which the officer or employee is, directly or indirectly interested, in violation of any law, rule or regulation.
- B. No person may offer, give, or agree to give any officer or employee or former officer or employee, nor may any officer or employee solicit, demand, accept, or agree to accept from another person, a gratuity or an offer of employment in connection with any decision, approval, disapproval, recommendation, preparation or any part of a program requirement or a purchase request, influencing the content of any

specification or procurement standard, rendering of advice, investigation, auditing, or in any other advisory capacity in any way pertaining to any program requirement, contract or subcontract, or to any solicitation or proposal.

20. **NOTICE**

A. All notices, requests, demands, or other communications under this Agreement will be in writing. Notice will be sufficiently given for all purposes as follows:

1. Personal delivery. When personally delivered to the recipient: notice is effective on delivery.
2. First Class mail. When mailed first class to the last address of the recipient known to the party giving notice: notice is effective three mail delivery days after deposit in an United States Postal Service office or mailbox.
3. Certified mail. When mailed certified mail, return receipt requested: notice is effective on receipt, if delivery is confirmed by a return receipt.
4. Overnight delivery. When delivered by an overnight delivery service, charges prepaid or charged to the sender's account: notice is effective on delivery, if delivery is confirmed by the delivery service.
5. Facsimile transmission. When sent by fax to the last fax number of the recipient known to the party giving notice: notice is effective on receipt. Any notice given by fax will be deemed received on the next business day if it is received after 5:00 p.m. (recipient's time) or on a non-business day.
6. Addresses for purpose of giving notice are as follows:

CONTRACTOR:

Fax: _____

CITY:

City Clerk
City of Torrance
3031 Torrance Boulevard
Torrance, CA 90509-2970
Fax: (310) 618-2931

- B. Any correctly addressed notice that is refused, unclaimed, or undeliverable because of an act or omission of the party to be notified, will be deemed effective as of the first date the notice was refused, unclaimed or deemed undeliverable by the postal authorities, messenger or overnight delivery service.
- C. Either party may change its address or fax number by giving the other party notice of the change in any manner permitted by this Agreement.

21. PROHIBITION AGAINST ASSIGNMENT AND SUBCONTRACTING

This Agreement and all exhibits are binding on the heirs, successors, and assigns of the parties. The Agreement may not be assigned or subcontracted by either the CITY or CONTRACTOR without the prior written consent of the other.

22. INTEGRATION; AMENDMENT

This Agreement represents the entire understanding of the CITY and CONTRACTOR as to those matters contained in it. No prior oral or written understanding will be of any force or effect with respect to the terms of this Agreement. The Agreement may not be modified or altered except in writing signed by both parties.

23. INTERPRETATION

The terms of this Agreement should be construed in accordance with the meaning of the language used and should not be construed for or against either party by reason of the authorship of this Agreement or any other rule of construction that might otherwise apply.

24. SEVERABILITY

If any part of this Agreement is found to be in conflict with applicable laws, that part will be inoperative, null and void insofar as it is in conflict with any applicable laws, but the remainder of the Agreement will remain in full force and effect.

25. TIME OF ESSENCE

Time is of the essence in the performance of this Agreement.

26. GOVERNING LAW; JURISDICTION

This Agreement will be administered and interpreted under the laws of the State of California. Jurisdiction of any litigation arising from the Agreement will be in Los Angeles County, California.

27. COMPLIANCE WITH STATUTES AND REGULATIONS

CONTRACTOR will be knowledgeable of and will comply with all applicable federal, state, county and city statutes, rules, regulations, ordinances and orders.

28. WAIVER OF BREACH

No delay or omission in the exercise of any right or remedy by a nondefaulting party on any default will impair the right or remedy or be construed as a waiver. A party's consent or approval of any act by the other party requiring the party's consent or approval will not be deemed to waive or render unnecessary the other party's consent to or approval of any subsequent act. Any waiver by either party of any default must be in writing and will not be a waiver of any other default concerning the same or any other provision of this Agreement.

29. ATTORNEY'S FEES

Except as provided for in Paragraph 15, in any dispute, litigation, arbitration, or other proceeding by which one party either seeks to enforce its rights under this Agreement (whether in contract, tort or both) or seeks a declaration of any rights or obligations under this Agreement, the prevailing party will be awarded reasonable attorney's fees, together with any costs and expenses, to resolve the dispute and to enforce any judgment.

30. EXHIBITS

All exhibits identified in this Agreement are incorporated into the Agreement by this reference.

31. CONTRACTOR'S AUTHORITY TO EXECUTE

The persons executing this Agreement on behalf of the CONTRACTOR warrant that (i) the CONTRACTOR is duly organized and existing; (ii) they are duly authorized to execute this Agreement on behalf of the CONTRACTOR; (iii) by so executing this Agreement, the CONTRACTOR is formally bound to the provisions of this Agreement; and (iv) the entering into this Agreement does not violate any provision of any other Agreement to which the CONTRACTOR is bound.

CITY OF TORRANCE,
a Municipal Corporation

Frank Scotto, Mayor

By: _____

ATTEST:

Sue Herbers, City Clerk

APPROVED AS TO FORM:

JOHN L. FELLOWS III
City Attorney

By: _____
(Name)
Deputy City Attorney

Attachments: Exhibit A: Bid

EXHIBIT A

Bid

[To be attached]

**CITY OF TORRANCE, CA
CONSTRUCTION OR SERVICE CONTRACT ENDORSEMENT**

To be attached to and made a part of all policies insuring the liability of any person, form or corporation performing services under contract for the City of Torrance.

Notwithstanding any inconsistent expression in the policy to which this endorsement is attached, or in any other endorsement now or hereafter attached thereto, or made a part thereof, the protection afforded by said policy shall:

1. Include the City of Torrance as an additional insured. (To include the elected officials, appointed officials, and employees.)
2. Indemnify and save harmless the City of Torrance against any and all claims resulting from the undertaking specified in the contract known as:

**BIDDER'S SUBMITTAL, SPECIFICATIONS, BOND AND AFFIDAVIT
FOR THE CONSTRUCTION OF
Crenshaw Boulevard Rehabilitation T-22
(190th Street to 182nd Street)
B2013-50; Federal Project No. HPLUL-5249(022)**

This hold harmless assumption on the part of the underwriters shall include all costs of investigation and defense, including claims based on damage to substructures not shown, not located on the plans, or shown incorrectly.

3. Not be cancelled except by notice to the City Attorney of the City of Torrance at least thirty (30) days prior to the date of cancellation.
4. Provide single limit for Bodily Injury Liability and Property Damage Liability combined, \$1,000,000 each Occurrence, and \$1,000,000 Aggregate.
5. Limited classifications, restricting endorsements, exclusions or other special provisions contained in the policy shall not act to limit the benefits of coverage as they shall apply to the City of Torrance as enumerated in this endorsement. However, nothing herein contained shall affect any rights of the insurer against the insured.
6. It is further expressly agreed by and between the parties hereto that the following two provisions, (a) and (b), are a part of this contract:
 - (a) That the Contractor specifically agrees to comply with applicable provisions of Section 1777.5 of the Labor Code relating to the employment by contractor or subcontractor under it, of journeyman or apprentices, or workmen, in any apprenticeable craft or trade.
 - (b) By my signature hereunder, as Contractor, I certify that I am aware of the provisions of Section 3700 of the Labor Code which requires every employer to be insured against liability for Workers' Compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the work of this contract.

The limits of liability as stated in this endorsement apply to the insurance afforded by this endorsement notwithstanding that the policy may have lower limits of liability applying elsewhere in the policy.

Duly Authorized Agent

Attached to and forming part of
Policy No. _____
of the _____

Date: _____
Expiration Date: _____

WORKERS' COMPENSATION INSURANCE CERTIFICATION

In compliance with Section 7-4 of the Standard Specifications, the Contractor shall complete and submit the following certification with a Certificate of Insurance before execution of the contract.

I am aware of, and will comply with, Section 3700 of the Labor Code, requiring every employer to be insured against liability for Workers' Compensation or to undertake self-insurance before commencing any of the work.

CONTRACTOR

By: _____

Title: _____

SECTION E

SPECIAL PROVISIONS

The following Special Provisions supplement and amend the Standard Specifications for Public Works Construction (2009 edition) and the Standard Specifications of the State of California Department of Transportation (Caltrans), latest edition, as noted herein. These Special Provisions have been arranged into a format that parallels the Standard Specifications for Public Works Construction.

SECTION E - SPECIAL PROVISIONS

Table of Contents

	Page
PART 1 - GENERAL PROVISIONS	
SECTION 1 -TERMS, DEFINITIONS, ABBREVIATIONS, UNITS OF MEASURE AND SYMBOLS	5
1-2 DEFINITIONS	
1-3 ABBREVIATIONS	
SECTION 2 - SCOPE AND CONTROL OF THE WORK	5
2-1 AWARD AND EXECUTION OF CONTRACT	
2-4 CONTRACT BONDS	
2-5 PLANS AND SPECIFICATIONS	
2-6 WORK TO BE DONE	
2-9 SURVEYING	
2-10 AUTHORITY OF BOARD AND ENGINEER	
2-11 INSPECTION	
SECTION 3 - CHANGES IN WORK	12
3-2 CHANGES INITIATED BY THE AGENCY	
3-3 EXTRA WORK	
3-4 CHANGED CONDITIONS	
SECTION 4 – CONTROL OF MATERIALS	14
4-1 MATERIAL AND WORKMANSHIP	
SECTION 5 - UTILITIES	14
5-1 LOCATION	
5-2 PROTECTION	
5-3 REMOVALS	
5-5 DELAYS	
SECTION 6 - PROSECUTION, PROGRESS & ACCEPTANCE OF THE WORK	17
6-1 CONSTRUCTION SCHEDULE AND COMMENCEMENT OF WORK	
6-7 TIME OF COMPLETION	
6-8 COMPLETION, ACCEPTANCE AND WARRANTY	
6-9 LIQUIDATED DAMAGES	
SECTION 7 - RESPONSIBILITIES OF THE CONTRACTOR	23
7-2 LABOR	
7-3 LIABILITY INSURANCE	
7-4 WORKER'S COMPENSATION INSURANCE	
7-5 PERMITS	
7-6 CONTRACTOR'S REPRESENTATIVE	

7-8 PROJECT SITE MAINTENANCE	
7-9 PROTECTION AND RESTORATION OF EXISTING IMPROVEMENTS	
7-10 PUBLIC CONVENIENCE AND SAFETY	
7-13 LAWS TO BE OBSERVED	
7-15 PROJECT CONSTRUCTION SIGNS AND PORTABLE CHANGEABLE MESSAGE SIGNS	
SECTION 9 - MEASUREMENT AND PAYMENT	39
9-1 MEASUREMENT AND PAYMENT	
9-2 LUMP SUM WORK	
9-3 PAYMENT	
9-4 CLAIMS	
PART 2 - CONSTRUCTION MATERIALS	
SECTION 200 - ROCK MATERIALS	42
200-2 UNTREATED BASE MATERIALS	
SECTION 203 - BITUMINOUS MATERIALS	42
203-6 ASPHALT CONCRETE	
SECTION 209 - STREET LIGHTING AND TRAFFIC SIGNAL MATERIALS	42
209-5.8.2 INDUCTIVE LOOP DETECTORS	
SECTION 210 - PAINT AND PROTECTIVE COATINGS	42
210-1 PAINT	
SECTION 212- LANDSCAPE AND IRRIGATION MATERIALS	43
212-1 LANDSCAPE MATERIALS	
212-2 IRRIGATION SYSTEM MATERIALS	
SECTION 214 - PAVEMENT MARKERS	46
(Replaced with Section 85 of Caltrans Standard Specifications)	
85-1.05 REFLECTIVE PAVEMENT MARKERS	
SECTION 217 - SIGNAGE	47
217-1 ROADSIDE SIGNS	
(Replaced with Section 56 of Caltrans Standard Specifications)	
56-2.02 MATERIALS	
PART 3 - CONSTRUCTION METHODS	
SECTION 300 - EARTHWORK	48
300-1 CLEARING AND GRUBBING	
300-2 UNCLASSIFIED EXCAVATION	

SECTION 301 - TREATED SOIL, SUBGRADE PREPARATION AND PLACEMENT OF BASE MATERIALS	53
301-2 UNTREATED BASE	
SECTION 302 - ROADWAY SURFACING	54
302-5 COLD MILLING ASPHALT CONCRETE PAVEMENT	
SECTION 303 - CONCRETE AND MASONRY CONSTRUCTION	57
303-5 CONCRETE CURBS, WALKS, GUTTERS, CROSS-GUTTERS, ALLEY INTERSECTIONS, ACCESS RAMPS AND DRIVEWAYS	
SECTION 307 - STREET LIGHTING AND TRAFFIC SIGNALS	62
(Replaced with Section 86 of Caltrans Standard Specifications)	
86-1 GENERAL	
86-2 MATERIALS AND INSTALLATION	
86-3 CONTROLLER ASSEMBLIES	
86-4 TRAFFIC SIGNAL AND FITTINGS	
86-5 DETECTORS	
86-6 LIGHTING	
86-7 REMOVING, REINSTALLING OR SALVAGING ELECTRICAL EQUIPMENT	
86-8 PAYMENT	
SECTION 308 - LANDSCAPE AND IRRIGATION INSTALLATION	70
308-2 EARTHWORK AND TOP SOIL PLACEMENT	
308-3 HEADER INSTALLATION	
308-4 PLANTING	
308-5 IRRIGATION SYSTEM INSTALLATION	
308-6 MAINTENANCE AND SOD ESTABLISHMENT	
308-7 GUARANTEE	
308-8 PAYMENT	
SECTION 310 - PAINTING	81
310-5 PAINTING VARIOUS SURFACES	
SECTION 312 - PAVEMENT MARKER PLACEMENT AND REMOVAL	82
(Replaced with Sections 85-1.06, 85-1.07 and 85-1.09 of Caltrans Standard Specifications)	
85-1.06 PLACEMENT	
85-1.09 PAYMENT	
SECTION 315 SIGNAGE	82
315-1 ROADSIDE SIGNS	
(Replaced with Section 56-2 of Caltrans Standard Specifications)	
56-2.03 CONSTRUCTION	
56-2.06 PAYMENT	

PART 1 - GENERAL PROVISIONS

SECTION 1 - TERMS, DEFINITIONS, ABBREVIATIONS, UNITS OF MEASURE, AND SYMBOLS

1-2 DEFINITIONS. Add or redefine the following:

Agency – The City of Torrance, herein referred to as CITY.

Board – The City Council of the City of Torrance, herein referred to as City Council.

Engineer –The Public Works Director and/or City Engineer of the City of Torrance, acting either directly or through properly authorized agents, such agents acting within the scope of the particular duties entrusted to them.

Claim -- A separate demand by the Contractor for (A) a time extension, (B) payment of money or damages arising from work done by or on behalf of the Contractor pursuant to the Contract and payment of which is not otherwise expressly provided for or the claimant is not otherwise entitled to, or (C) an amount the payment of which is disputed by the Agency.

1-3 ABBREVIATIONS.

1-3.2 Common Usage:

Add the following abbreviations:

Approx	Approximate
Exist.	Existing
Med.	Median
Reconst.	Reconstruct
Temp.	Temporary

SECTION 2 - SCOPE AND CONTROL OF THE WORK

2-1 AWARD AND EXECUTION OF CONTRACT. Replace the entire subsection with the following:

Within ten (10) working days after the date of the CITY'S award of contract, the Contractor shall execute and return all Contract Documents required by the CITY. The CITY reserves the right to terminate the award if the above requirement is not met. Such termination will result in the forfeiture of the Proposal Guaranty.

The Contract shall not be considered binding upon the CITY until executed by the authorized CITY officials.

2-4 CONTRACT BONDS. Revise the second sentence of the fourth paragraph to read as follows:

The "Performance Bond" shall remain in effect for one year following the date specified in the Notice of Completion or, if no Notice of Completion is recorded, for one year following the date of final acceptance by the Engineer.

2-5 PLANS AND SPECIFICATIONS.

2-5.1 General. Add the following sentence to the first paragraph to read as follows:

The Contractor shall maintain a control set of Plans and Specifications on the Work site at all times. All final locations determined in the field, and any deviations from the Plans and Specifications, shall be marked in red on this control set to show as-built conditions. Upon completion of the Work, the Contractor shall submit the control set to the Engineer for approval. Final payment will not be made until this requirement is met.

Add the following subsections:

2-5.1.1 Plans. Included as part of the Contract Documents are the following, which show the location, character, dimensions or details of the Work:

1) Project Plans

The plans and data provided with the Contract Documents are based on existing plans and documents. The plans and data are provided for information only. The Owner does not guarantee their accuracy and correctness. If the Bidder in preparing the Bid Proposal uses this information, the Bidder assumes all risks resulting from conditions differing from the information shown. The Bidder, in consideration for the information being provided, hereby releases the Owner and Consulting Engineer from any responsibility of obligation as to the accuracy of such information or for any additional compensation for work performed due to assumptions based on the use of such information.

2) Standard Plans and Manuals

- a. City of Torrance Standard Plans, latest edition
- b. Standard Plans for Public Works Construction, 2009 edition, promulgated by Public Works Standards, Inc.
- c. Standard Plans of the State of California Department of Transportation (Caltrans), latest edition
- d. California Manual of Uniform Traffic Control Devices (MUTCD), latest edition

Applicable Standard Plans and information for this project are included in Appendices of these Specifications.

2-5.1.2 Specifications. The Work shall be performed or executed in accordance with these Special Provisions and the following:

- 1) Standard Specifications for Public Works Construction, 2009 edition and supplements thereto, hereinafter referred to as the Standard Specifications, as written and promulgated by Public Works Standards, Inc. The Standard Specifications are published by BNi Building News, Inc., 1612 South Clementine Street, Anaheim, CA 92802, Phone: (800) 873-6397.
- 2) Sections 56-2, 84, 85, 86 and 90-10 of the State of California Department of Transportation (Caltrans) Standard Specifications, latest edition

2-5.2 Precedence of Contract Documents. Replace the entire subsection with the following:

If there is a conflict between any of the Contract Documents, the document highest in precedence shall control. The order of precedence shall be as follows:

- 1) Permits issued by other agencies.
- 2) Change Orders (including Plans and Specifications attached thereto).
- 3) Public Works Agreement
- 4) Addenda
- 5) Special and General Provisions
- 6) Plans
- 7) City Standard Plans
- 8) Other Standard Plans
- 9) Standard Specifications for Public Works Construction
- 10) Reference Specifications

With reference to the Plans/Drawings, the order of precedence is as follows:

- 1) Change Order plans govern over Addenda and Contract plans
- 2) Addenda plans govern over Contract plans
- 3) Contract plans govern over standard plans
- 4) Detail plans govern over general plans
- 5) Figures govern over scaled dimensions

Within the Specifications, the order of precedence is as follows:

- 1) Change Orders
- 2) Permits from other agencies/Supplemental Agreements
- 3) Special Provisions
- 4) Instruction to Bidders
- 5) Referenced Standard Plans
- 6) Referenced Standard Specifications

If the Contractor, in the course of the Work, becomes aware of any claimed errors or omissions in the Contract Documents or in the CITY's fieldwork, the Contractor shall immediately inform the Engineer. The Engineer shall promptly review the matter and if the Engineer finds an error or omission has been made, the Engineer shall determine the corrective actions and advise the Contractor accordingly. If the corrective work associated with an error or omission increases or decreases the amount of work called for in the Contract, the CITY shall issue an appropriate Change Order in accordance with Section 3-3. After discovery of an error or omission by the Contractor, any related work performed by the Contractor shall be done at the Contractor's risk unless authorized by the Engineer.

2-5.3 Submittals

2-5.3.2 Working Drawings. Add the following:

In addition to the shop drawings required per Table 2-5.3.2 (A), the following shop drawings are required:

Item	Subsection Number	Title	Subject
18	7-8.6.3	Storm Water Pollution Prevention Plan (SWPPP)	Water Pollution Control

Revise the fourth paragraph of the Standard Specifications to read as follows:

Shop drawings listed above shall be prepared, wet stamped, and signed by a Civil or Structural Engineer registered by the State of California.

2-5.3.4 Supporting Information. Replace the second paragraph with the following:

Submittals are required for the following

- 9) Detectable Warning Surface (truncated dome) per Section 303-5.5.5
- 10) CMB Mix Design/ Properties
- 11) Proposed Hauling Route(s) for Construction Material
- 12) Trench Backfill (100-E-100)
- 13) Landscape Materials and appurtenances as shown on plans and in these specifications
- 14) Precast Concrete Pavers including Sand Base
- 15) 4" Schedule PVC Sleeve, fittings and appurtenances
- 16) 4" Welded Steel Irrigation Sleeve, fittings and appurtenances
- 17) Pedestrian Countdown Displays
- 18) Video Detection Equipment
- 19) Internally Illuminated Street Name Signs

In addition to the above, submittals may be required for any product, manufactured item, or system not specifically listed above.

2-5.4 Examination of Documents. The bidder shall examine carefully the entire site of the work, including but not restricted to the conditions and encumbrances related thereto, the Plans and Specifications, and the proposal and contract forms therefore. The submission of a bid shall be conclusive evidence that the bidder has investigated and is satisfied as to the conditions to be encountered, as to the character, quality, and scope of the work to be performed, the quantities of material to be furnished and as to the requirements of the proposal, Plans, Specifications, and the contract.

2-6 WORK TO BE DONE. Add the following:

The Work generally consists of the rehabilitation of asphalt concrete pavement, cold milling, localized pavement repair, placement of asphalt concrete, repair and construction of concrete curb, gutter, driveways, sidewalk, access ramps, landscaping, installing video detection system, traffic loop detector replacement, signing, striping, traffic control and all other incidental work in these Specifications and City of Torrance Plan No. ST-1037.

2-9 SURVEYING.

2-9.1 Permanent Survey Markers. Replace the entire Subsection 2-9.1 with the following:

The Contractor shall be responsible to have a CA Registered Land Surveyor document all surveying monuments, lot stakes (tagged), centerline ties, and bench marks that may be disturbed during construction at Contractor's own cost. Documentation shall be provided to the Engineer that the surveying has been completed. The Contractor shall be financially responsible for the surveyor to perform Corner Record documentation including submitting Corner Record forms in the Office of the County Surveyor prior to the start of construction and also prior to the completion of construction for the replacement of all survey monuments, lot stakes (tagged), centerline ties and benchmarks.

The Contractor shall not disturb survey monuments, lot stakes (tagged), centerline ties, or benchmarks without notifying the Engineer and having the Contractor's surveyor document the location for reestablishment at the completion of the contract. All surveying shall be done by a Registered Licensed Land Surveyor or a Registered Civil Engineer authorized to practice land surveying within the state.

If monuments and centerline ties are to be disturbed during work, monuments and centerline ties shall be tied out and reset in accordance with Section 8771 (Land Surveyors Act) of the Business and Professions Code of the State of California, and the Corner Records shall be filed with the Los Angeles County Surveyor as well as the Engineer. Copies of the records shall be provided to the City. **Final payment will not be made until the aforementioned documentations are provided to the CITY.**

2-9.2 Survey Service. Replace the entire subsection with the following:

All construction surveying necessary to complete the Work shown on the Plans and provided in these Contract Documents shall be accomplished by or under the direction of a Registered Land Surveyor or Registered Civil Engineer authorized to practice land surveying in the State of California, retained or provided by the Contractor. The CITY reserves the right to direct additional construction survey work to be performed at no additional cost when the City determines it is required to adequately construct the Work.

The Contractor shall notify the Engineer in writing at least 2 working days prior to the actual survey. The Contractor shall provide the traffic control necessary for construction surveying.

Stakes shall be set and stationed by the Contractor for curbs, curbs and gutters, sidewalks, access ramps, bus pads, driveways, headers, cross gutters, spandrels, catch basins, rough grade, and other items as necessary. A corresponding cut or fill to finished grade (or flow line) shall be indicated on a grade sheet. A copy of each grade sheet shall be furnished to the Engineer. If any construction survey stakes are lost or disturbed and need to be replaced, such replacement shall be by the Contractor at its expense.

Construction stakes shall consist of the following:

- a. One set of paving stakes.
- b. Line and grade of new curb and gutter
- c. Line and grade of existing features shown on the plan to be replaced in kind sufficient for their construction.

The Contractor shall submit to the City within 2 days after completion of each respective survey, setting of each stake and heading check a copy of the survey notes and calculations certified by the licensed Land Surveyor for the following:

- a. Level and horizontal control circuit for survey control.
- b. Grade sheets for pipeline stakes.
- c. Grade sheets for curb and gutter and replace in kind features.

2-9.5 Payment

Payment for CONSTRUCTION SURVEYING shall be on a lump sum basis per the Contract Unit Price. All costs for construction surveying, including construction staking, professional services, office calculations, traffic control, furnishing all labor, materials, equipment, tools and incidentals, and for doing all work involved shall be considered as included in the price for which such work is appurtenant thereto, and no additional allowance will be made.

2-10 AUTHORITY OF BOARD AND ENGINEER. Add the following:

Failure of the Contractor to comply with the requirements of the Contract Documents, or to follow the directions of the Engineer, and/or to immediately remedy such noncompliance or to follow directions, may, upon notice from the Engineer, result in the suspension of the Contract monthly progress payments. Any monthly progress payments so suspended may remain in suspension until the Contractor is in compliance with the Contract Documents and the directions of the Engineer, as determined by the Engineer.

2-11 INSPECTION. Replace the entire subsection with the following:

The Work is subject to inspection and approval by the Engineer. The Contractor shall notify the Engineer a minimum of 48 hours in advance of the required inspection.

The Engineer will make, or have made, such inspections and tests as he deems necessary to see that the Work is in conformance with the Contract Documents. In the event such inspections or tests reveal noncompliance with the Contract Documents, the Contractor shall bear the cost of such corrective measures as deemed necessary by the Engineer, as well as the cost of subsequent re-inspection and re-testing.

Work done in the absence of inspection by the Engineer may be required to be removed and replaced under the inspection of the Engineer, and the entire cost of removal and replacement, including the cost of all materials which may be furnished by the CITY and used in the work thus removed, shall be borne by the Contractor, regardless of whether the work removed is found to be defective or not. Work covered without the approval of the Engineer shall, if so directed by the Engineer, be uncovered to the extent required by the Engineer, and the Contractor shall similarly bear the entire cost of performing all the work and furnishing all the

materials necessary for the removal of the covering and its subsequent replacement, including all costs for additional inspection.

The Engineer and any authorized representatives shall at all times have access to the Work during its construction at shops and yards as well as the Work site. The Contractor shall provide every reasonable facility for ascertaining that the materials and workmanship are in accordance with the Contract Documents.

Inspection of the Work shall not relieve the Contractor of the obligation to fulfill all conditions of the Contract.

Add the following subsections:

2-11.1 Special Inspection Fees. If the Contractor elects to work under this Contract more than 8 hours/day or more than 40 hours/week, Saturday, Sunday, or City holidays, the Contractor shall arrange with the Engineer for the required inspection service and pay the Special Inspection Fees which will be charged at the following rates:

Mondays through Fridays	-	\$135.00 per hour
Saturdays, Sundays, Holidays	-	\$1,000.00 per day

Fees may be deducted from payments due to the Contractor at the discretion of the Engineer.

If the Contractor works under this contract at times other than within the allowed working hours without permission from or prior arrangement with the Engineer, the Contractor will be charged a lump sum amount of \$500.00 for each occurrence, in addition to the above fees. The amount will be deducted from a Progress Payment.

2-11.2 Inspections During Construction. During the construction, the Contractor shall make the Work site available for inspections by any regulatory agency.

2-11.3 Material Inspection/Testing and other City Expenses.

- (a) If a City subcontractor hired to perform material inspection and/or testing is required to work additional time to perform inspection and testing as a result of an action or delay caused by the Contractor, except for specific work allowed by the Engineer, the City subcontractor may charge the City an additional fee. The Engineer may deduct the additional fee for said inspection and testing from a Progress Payment to the Contractor. The Engineer also may deduct the cost to perform additional testing when an initial test fails to meet the requirements of this Contract. The typical rates for material testing and inspection are available upon request from the Public Works Department.
- (b) If the Contractor does not comply with a requirement of these Special Provisions or if it does not respond, after being informed, to a request by the Engineer to amend a site condition that jeopardizes the public health, safety or welfare, the Engineer may direct City crews to perform the work. For each occurrence, the City may charge the Contractor a base charge in the amount of \$750 in addition to all costs incurred by City crews for labor, equipment and materials. The standard rates for City crews are available upon request from the Public Works Department.

- (c) For each sign, drum, barricade, warning device, flagger or other type of required traffic control device that is not provided in accordance with the approved Traffic Control Plans, unless otherwise authorized by the Engineer, the Engineer may deduct \$50 per day from a Progress Payment for each missing device. The deduction does not apply to a device that is fraudulently removed by non-construction personnel.
- (d) Temporary lane closures maintained prior to 9:00 A.M. and/or after 3:30 P.M. may have a negative economic effect on the local residential, commercial or industrial community. Unless a temporary lane closure is otherwise authorized, the Engineer may deduct a fee from a Progress Payment for each temporary lane closure maintained prior to 9:00 A.M. or after 3:30 P.M. The fee will be assessed at a rate of \$700 per each travel lane per each thirty (30) minute interval, or fraction thereof.

SECTION 3 – CHANGES IN WORK

3-2 CHANGES INITIATED BY THE AGENCY

3-2.1 General. Delete this subsection in its entirety.

3-2.2 Contract Unit Prices.

3-2.2.1 General. Delete this subsection in its entirety. Add the following:

The City reserve the right to increase or decrease any bid item quantity, as necessary, to meet the City's needs and/or the project and/or budget requirements. If the City increases or decreases any bid item by more than 25% of the original contract quantity, either the City or the Contractor may initiate discussions and/or negotiations regarding a potential adjustment to the contract unit bid price.

3-2.2.2 Increase of More Than 25 Percent. Delete this subsection in its entirety.

3-2.2.3 Decrease of More Than 25 Percent. Delete this subsection in its entirety.

3-3 EXTRA WORK

3-3.1 General. Add the following:

Payment for additional work and all expenditures in excess of the Contract Price must be authorized in writing by the Engineer. Such authorization shall be obtained by the Contractor prior to engaging in additional work. It shall be the Contractor's sole responsibility to obtain written approval from the Engineer for any change(s) in material or in the work proposed by suppliers or subcontractors. No payment shall be made to the Contractor for additional work which has not been approved in writing, and the Contractor hereby agrees that it shall have no right to additional compensation for any work not so authorized.

The Contractor shall be responsible to provide all data and to obtain all approvals required by the Specifications, including submittal of Daily Extra Work Reports. No claims or extras shall be approved by the Engineer unless all work was done under the direction of and subject to the approval of the Engineer. Disputed work claims shall comply with Section 3-3 as modified

herein.

3-3.2.2 Basis for Establishing Costs. Replace the second paragraph of part (c) with the following:

The Contractor will be paid for the use of equipment at the lower of the actual rental rates paid by the Contractor or the rental rates listed for such equipment in either the "Rental Rate Blue Book" published by Dataquest, Inc., 1290 Ridder Park Drive, San Jose, California 95131; telephone (408) 971-9000 or the California Department of Transportation publication entitled "Labor Surcharge and Equipment Rates" available at the Caltrans web site, www.dot.ca.gov/hq/eqsc/inforesources.htm, which is in effect on the date upon which the work is accomplished, and that hereby is made a part of the Contract, regardless of ownership or any rental or other agreement, if such may exist, for the use of such equipment entered into by the Contractor. If it is deemed necessary by the Engineer to use equipment not listed in the said publication, a suitable rental rate will be established by the Engineer. The Contractor may furnish any cost data that might assist the Engineer in the establishment of such rental rate.

3-3.2.3 Markup. Replace the entire subsection with the following:

The markups mentioned hereinafter shall include, but are not limited to, all costs for the services of superintendents, project managers, timekeepers and other personnel not working directly on the change order, and pickup or yard trucks used by the above personnel. These costs shall not be reported as labor or equipment elsewhere except when actually performing work directly on the change order and then shall only be reported at the labor classification of the work performed.

(a) Work by Contractor. The following percentages shall be added to the Contractor's costs and shall constitute the mark-up for all overhead and profit, which shall be deemed to include all items of expense not specifically designated as cost or equipment rental in Subsections 3-3.2.2(a), 3-3.2.2(b), and 3-3.2.2(c).

Labor	20
Materials	15
Equipment Rental	15
Other Expenditures	15

To the sum of the costs and markups provided for in this subsection, one (1) percent shall be added as compensation for bonding.

(b) Work by Subcontractor. When any part of the extra work is performed by a subcontractor, the markup established in Section 3-3.2.3(a) shall be applied to the subcontractor's actual cost of such work. A markup of ten (10) percent on the first \$5,000 of the subcontracted portion of the extra work and a mark-up of 5 percent on work added in excess of \$5,000 of the subcontracted portion of the extra work may be added by the Contractor.

The markups specified in parts (a) and (b) above shall be considered as including, but not limited to, the Contractor's labor costs for personnel not working directly on the extra work, including the cost of any tools and equipment that they may use. Such costs shall not be reported as labor or equipment costs elsewhere except when they are actually used in the performance of the extra work. Labor costs shall in that case be reported for the labor classification corresponding to the type and nature of extra work performed.

3-4 CHANGED CONDITIONS.

Add the following:

This subsection does not apply to utilities.

SECTION 4 – CONTROL OF MATERIALS

4-1 MATERIAL AND WORKMANSHIP.

4-1.1 General.

Add the following paragraph after the second paragraph:

If the work, or any portion thereof, shall be damaged in any way, or if any defective materials or faulty workmanship shall be discovered at any time prior to the final payment, the Contractor shall forthwith, at its own cost and expense, repair said damage, or replace such defective materials, or remedy such faulty workmanship in a manner satisfactory to the Engineer.

4-1.2 Protection of Work and Materials.

Add the following:

The Contractor shall assume all risks and expense of interference and delay in his operations, and the protection from or the repair of damage to improvements being built under the contract, as may be caused by water of whatever quantity from floods, storms, industrial waste, irrigation, underground or other sources. However, the Contractor shall be entitled to an extension of time in accordance with the provisions of Subsection 6-6. The Contractor shall also assume full responsibility and expense of protecting, or removing and returning to the site of Work, all equipment or materials under his care endangered by any action of the elements.

Furthermore, the Contractor shall indemnify and hold the City harmless from all claims or suits for damages arising from his operations in dewatering the Work and control of water.

SECTION 5 – UTILITIES

5-1 LOCATION. Add the following:

The Contractor shall provide coordination with all the utility companies involved and shall provide protection from damage to their facilities. The Contractor shall be responsible for repair or replacement to said facilities made necessary by its failure to provide required protection. The Contractor is required to include utility requirements in the Construction Schedule per Subsection 6-1.

The Contractor shall be solely responsible to check all utility record maps, books, and/or other data in the possession of the CITY, other agencies, and/or all utility companies, and no allowance shall be made for any failure to have done so.

The Contractor shall utilize the services of "Underground Service Alert-Southern California" for utility locating in all public right-of-ways by calling 1-800-227-2600 at least 48 hours prior to any excavation.

Underground lines that are potentially hazardous such as oil company lines, natural gas mains, and electrical conduits will be carefully located by the owner as provided in the Standard Specifications. The Contractor shall take special precautions in determining the precise location and depth of these structures to insure that they will not be damaged by its operations.

Substitute the following for the last paragraph:

Prior to starting construction, the Contractor shall be responsible to determine the location and depth of all utilities which have been marked by the respective owners and which may affect or be affected by its operations. The Contractor also shall determine the location and depth of each service connection, whether or not marked. Full compensation for such work shall be considered as included in the prices bid for other items or work. If a utility which was marked or a service connection is found to interfere with the work after construction has commenced, the Contractor shall be solely responsible for all costs of any delay and for any costs which could have been avoided if the Contractor had located the utility prior to start of construction.

5-2 PROTECTION. Add the following:

If, in the course of construction, the Contractor damages a sewer lateral or water lateral, the Contractor shall be responsible to completely expose said lateral from the main line to the point of connection at private property to verify integrity of all joints to the satisfaction of the Engineer. This shall not be considered to be extra work and no extra costs shall be allowed therefor.

Sewers, including lateral repairs, shall be constructed of Vitrified Clay Pipe, unless otherwise approved in writing by the Engineer.

Add the following after the final paragraph:

As noted in subsections 5-2.1, 5-2.2 and 5-2.3, utilities are classified and are to be handled in one of three ways by the Contractor in the course of performing the contract.

5-2.1 Noninterfering Utilities

Utilities that are not abandoned by the owner and do not physically interfere with the permanent work in its final location shall be supported, protected and maintained in place by the Contractor, and the Contractor shall be solely responsible for any damage, loss or injury, or death resulting from his/her failure to do so and the Contractor shall indemnify and hold harmless the City from any and all such consequences. Noninterfering utilities may, with the permission of the owner and the Public Works Director, be relocated still farther from the permanent work in its final locations, but the Contractor shall not so consider, in submitting his bid, unless the relocation is shown on the plans.

5-2.2 Abandoned Utilities

Abandoned utilities are those portions of any utility which are no longer needed or desired by the owner and whose destruction is consented to by the owner and/or is permitted by notation on the plans. Abandoned utilities which physically interfere with the permanent work or with the construction thereof shall be removed by the Contractor and the Contractor shall be solely responsible for any damage, loss or injury, or death resulting from the removal and the Contractor shall indemnify and hold harmless the City from any and all such consequences.

5-2.3 Interfering Utilities

Any utility shall be deemed an interfering utility (1) which physically occupies any part of the space to be occupied by the permanent work in its final locations, or (2) whose length within the theoretical width of excavation for the permanent work exceeds five times the width of said theoretical excavation whether or not the utility physically interferes with the permanent work. Interfering utilities that are not abandoned by the owner shall be relocated so as not to interfere with the permanent work in its final location. Such relocation will be performed by the owner or the City unless otherwise shown on the plans.

The Contractor shall exercise caution to prevent damage to or movement of the utilities while constructing the permanent work along and adjacent to the utilities.

5-2.4 Protection of Underground Hazardous Utilities. This Subsection shall apply to projects where there are underground utilities within the Work area which may be potentially hazardous if damaged. A hazardous substance shall be defined as one having the potential for an immediate disaster such as, but not limited to, gasoline, electricity, fuel oil, butane, propane, natural gas, chlorine or other chemicals.

Abandoned or inoperative utilities designed to carry hazardous substances and unidentified or unknown utilities shall be considered hazardous until determined otherwise. Whenever the Contractor is directed by the Engineer to tap these lines, the Contractor shall provide personnel specialized in this work and payment therefore will be considered as extra work per 3-3 of these Special Provisions.

The Contractor shall comply with the following requirements when working around underground hazardous utilities:

- 1) The Contractor shall not trench or excavate within the area where a utility known to carry a hazardous substance exists until its location has been determined by excavation or other proven methods acceptable to the Engineer. The intervals between exploratory excavations or location points shall be sufficient to determine the exact location of the line. Unless otherwise directed by the Engineer, excavation for underground hazardous utilities shall be performed by the Contractor and paid for as specified per 5-1 of these Special Provisions.
- 2) If it is determined that the horizontal or vertical clearance between the utility known to carry hazardous substances and the construction limit is less than 300 mm (12 inches) (450mm (18 inches) if scarifying), the Contractor shall confer with its owner. Unless the owner elects to relocate the line or take it out of service, the Contractor shall not excavate until the line has been completely exposed within the limits of construction.
- 3) Once the physical location of the utility known to carry hazardous substances has been determined, the Contractor, in cooperation with and with the concurrence of the utility owner, shall determine how to protect and/or support the utility from damage before proceeding with the Work.
- 4) During all excavation and trenching operations, the Contractor shall exercise extreme caution and protect the utilities from damage.

- 5) The Contractor shall notify the Engineer, the public agency maintaining records for the jurisdiction in which the Project is located and the owner, if known, whenever previously unidentified or unknown underground utilities are encountered so that the location can be accurately established and made a part of permanent substructure records.

Full compensation for protecting underground hazardous utilities as specified or noted on the Plans shall be considered as included in the prices bid for the various items of work.

5-3 REMOVAL.

Add the following:

It shall be the Contractor's responsibility, irrespective of the notations on the plans, to confirm or determine that a utility is to be abandoned before treating the same as an abandoned utility and shall assume all risks in so determining.

5-5 DELAYS.

Substitute the following:

If the contractor while performing the contract discovers utility facilities not identified by the public agency in the contract plans or specifications, he shall immediately notify the City and utility in writing. The Contractor shall not be entitled to damage or additional payment, nor shall it be entitled to standby time for labor if a delay does occur. The Contractor also shall not be entitled to damage or additional payment for equipment not on the project during the occurrence of the event that caused the related delay. The Engineer will determine the extent of the delay attributable to such interferences, the affect of the delay on the project as a whole, and any commensurate extension of time.

Any failure of the City and/or utility company to accomplish relocations in a reasonable manner in light of the Contractor's operations (to the extent such operations would otherwise be feasible and in accordance with the contract and as disclosed to the City prior to the Contractor encountering any such utility) shall entitle the Contractor to an extension of contract time to the extent that, in the judgment of the Engineer, the Contractor's completion of the overall contract work has been delayed; however, the Contractor shall be entitled to no other remedy and, in submitting its bid, thereby waives such other remedies, if any, unless the relocation delay is the result of arbitrary, capricious or malicious conduct by the City.

SECTION 6 - PROSECUTION, PROGRESS AND ACCEPTANCE OF THE WORK

6-1 CONSTRUCTION SCHEDULE AND COMMENCEMENT OF WORK. Replace the entire subsection with the following:

6-1.1 General. Within ten (10) working days after the date of the CITY's execution of the Contract, the Contractor shall submit a proposed construction schedule to the Engineer for approval. The schedule shall be in accordance with 6-1.2 and 6-1.3 and shall be in sufficient detail to show chronological relationship of all activities of the Work. These include, but are not limited to: estimated starting and completion dates of various activities, submittal of shop drawings to the Engineer for approval, procurement of materials and scheduling of equipment.

Prior to issuing the Notice to Proceed, the Engineer will schedule a Pre-Construction Meeting with the Contractor to review the proposed construction schedule and delivery dates, arrange utility coordination and clarify inspection procedures.

Notwithstanding any other provisions of the Contract, the Contractor shall not be obligated to perform any work and the CITY shall not be obligated to accept or pay for any work performed by the Contractor prior to delivery of a Notice to Proceed. The CITY's knowledge of work being performed prior to delivery of the Notice to Proceed shall not obligate the CITY to accept or pay for such work. The Contractor shall provide all required Contract bonds and evidences of insurance prior to commencing work at the site.

6-1.2 Criteria. The construction schedule shall conform to the following criteria:

- 1) The schedule shall be prepared using the latest version of Primavera, Microsoft Project or approved equal.
- 2) Work activities shall be based on the items of work per Subsection 2-6, and the following:
 - a) Contract Unit Price items shall be subdivided into those portions to be constructed during each stage or phase of construction.
 - b) Lump sum items shall be subdivided into those portions to be constructed during each stage or phase of construction.
- 3) Utility relocations in coordination with the Contractor per Subsection 5-4 of the Standard Specifications shall be considered as activities.
- 4) Required submittals, working and shop drawings shall be included as activities.
- 5) The procurement of construction materials and equipment with long lead times for deliveries shall be included as activities.
- 6) Work to be performed by subcontractors shall be identified and shown as work activities.
- 7) Start and completion dates of each activity shall be illustrated.
- 8) Completion of all Work under the Contract shall be within the time specified in Subsection 6-7 of these Special Provisions and in accordance with the Plans and Specifications.

6-1.3 Requirements. When preparing the construction schedule, the following items shall be considered:

Sequence of Construction – The Contractor shall sequence the Work in a manner to expeditiously complete the project with a minimum of inconvenience to the adjacent property owners and to conform to the following sequence:

1. Demolition of existing landscaping/irrigation; median hardscape

Contractor is allowed to simultaneously close only 1 northbound lane and 1 southbound lane on Crenshaw Blvd to perform the work. Said lane closures are allowed only between 9:00 a.m. and 3:30 p.m. weekdays and only between 7:30 a.m. and 4:00 p.m. on Saturdays and Sundays.

2. Sawcutting of PCC curb, gutter, sidewalk, driveways, curb ramps

For sawcutting activities, the Contractor may simultaneously close only 1 northbound curb lane and 1 southbound curb lane on Crenshaw Blvd. Said lane closures are allowed only between 9:00 a.m. and 3:30 p.m. weekdays and only between 7:30 a.m. and 4:00 p.m. on Saturdays and Sundays. All sawcutting must be complete prior to beginning PCC removals.

3. Remove/pour PCC curb, gutter, sidewalk, driveways, landscape safety ribbon

Contractor is allowed to simultaneously close only 1 northbound curb lane and 1 southbound curb lane on Crenshaw Blvd on a 24-hour basis to complete the work. Maximum duration of the 24-hour lane closure is 4 consecutive calendar days. During the 4 consecutive days, the Contractor shall perform: removal, subgrade preparation, placement/compaction of CMB, fine grading, forming, pouring of PCC and restoring either the 6-inch or 1-foot trench to a condition safe for vehicles and bicycles. Lanes must be re-opened to traffic at the end of the 4th day. Otherwise, the City may assess a \$1,000 per calendar day penalty and will be deducted, accordingly, from a Progress Payment due to the Contractor.

All concrete removed shall be hauled off the Work site (including the Contractor's storage yard) no later than the calendar day following the day that the removal is performed. If the calendar day following the removal is a non-working day (Saturday, etc.) the concrete shall be hauled off the Work site on the same day it was removed. Unless otherwise authorized by the Engineer, failure by the Contractor to haul concrete from the Work site and/or Contractor's storage yard(s) in a timely manner may result in a liquidated damage assessed upon the Contractor. Such liquidated damage shall be determined by the Engineer and will be deducted, accordingly, from a Progress Payment due to the Contractor.

4. Contractor shall install the 4-inch welded steel pipe (sleeve) across Crenshaw Blvd, as shown on plans, prior to pavement reconstruction on Crenshaw Blvd.
5. Pavement Reconstruction

The Contractor must finish all work associated with items 1, 2, 3 and 4 of this subsection (see previous page) before it may commence with pavement reconstruction.

Pavement reconstruction is divided into 2 separate areas.

Area 1: Crenshaw Blvd from 190th St and northerly to the I-405 southbound on/off-ramp interchange at STA 31+00.

Area 2: Crenshaw Blvd from the I-405 southbound on/off-ramp interchange at STA 31+00 to approximately 200 feet north of 182nd St, excluding the intersection of 182nd St.

The Contractor may not simultaneously work in Area 1 and Area 2. The Contractor must perform and complete work in Area 1 before it may begin work in Area 2.

The following is required:

Area 1:

Work is divided into 4 separate stages as shown on the Traffic Control plans. Two stages for northbound and two stages for southbound. The Contractor must work in only one stage at a time.

Crenshaw Blvd Northbound (190th Street to I-405 southbound on/off-ramp interchange at STA 31+00): The Contractor shall first perform work in Stage 1 and then progress to Stage 2, as shown on Traffic Control Plans. The Contractor shall maintain access to the two driveways located between Stations 21+50 and 22+00, and Stations 24+00 and 24+76 respectively, except temporarily during excavation, subgrade preparation and paving operations.

Crenshaw Blvd Southbound (I-405 southbound on/off-ramp interchange at STA 31+00 to 190th St): The Contractor shall next perform work in Stage 3 and then progress to Stage 4. The Contractor shall maintain access to the Crenshaw Blvd frontage road at 186th St and 188th St per the Traffic Control Plans.

Area 2:

Work in Area 2 also is divided into 4 separate stages per the typical sections shown on the Traffic Control Plans identical to Area 1. The Contractor must work in only one stage at a time.

Crenshaw Boulevard Northbound (I-405 southbound on/off-ramp interchange at STA 31+00 to 200 feet north of 182nd Street, excluding the intersection of 182nd Street): The Contractor shall first perform work in Stage 1 and then progress to Stage 2, as shown on Traffic Control Plans. For I-405 southbound on/off-ramp lane and/or closures, the Contractor shall adhere to Caltrans Encroachment Permit conditions and hours of closure shown in Appendix IX and on the Plans. Ramp closure shall be per Caltrans Standard Plan T14 (Typical Ramp Closures, Exit Ramp or Connectors) shown in Appendix IV.

Crenshaw Boulevard Southbound (200 feet north of 182nd St, excluding 182nd intersection, to the I-405 southbound on/off-ramp interchange at STA 31+00): The Contractor shall next perform work in Stage 3 and then progress to Stage 4, as shown on Traffic Control Plans. For I-405 southbound on/off-ramp closure, the Contractor shall adhere to Caltrans Encroachment Permit conditions and hours of closure shown in Appendix IX and on the Plans. Ramp closure shall be per Caltrans Standard Plan T14 (Typical Ramp Closures, Exit Ramp or Connectors) shown in Appendix IV.

SPECIAL CONDITION: For each stage in Areas 1 and 2, if, other than for weather conditions or unanticipated subgrade or changed conditions, the Contractor must perform all work and install the new roadway structural section of asphalt concrete in each Stage within 4 calendar days after beginning the work in that Stage. **Otherwise, the City will assess a penalty of \$5,000 per calendar day to the Contractor.**

For all Areas and all Stages, the Contractor must install and maintain temporary yellow and white reflective tabs until such time as the final permanent pavement striping and markings are installed.

For all Areas and all Stages south of the 182nd Street intersection, it is recommended that the Contractor install the 7-inch section of asphalt concrete (4 inches of B-PG64-10 covered by 3 inches of C2-PG64-10) on the same working day.

6. Inductive Detector Loops

All new inductive detector loops shall be installed PRIOR to the installation of permanent thermoplastic pavement markings.

7. Permanent pavement markings and markers

Permanent pavement markings and markers shall occur only after the final surface course is installed for all 4 stages of Areas 1 and 2. Within 3 working days following the installation of the final asphalt concrete surface course, the Contractor shall complete the “cat-tracking” of all proposed pavement markings shown on the Plans. The CITY will inspect all “cat-tracking” within 2 working days and notify the Contractor of any needed corrections or adjustments. Upon approval of the “cat-tracking” by the Engineer, the Contractor shall then complete the installation of all thermoplastic pavement markers and markings within 5 calendar days. Accordingly, the Contractor is required to provide and maintain all temporary striping and/or reflectorized yellow and white pavements tabs until such permanent thermoplastic paint is applied.

8. Hardscape./Landscape

New hardscape/landscape and irrigation (except for 4-inch welded steel pipe across Crenshaw blvd) within the limits of Area 1 may be installed only after Area 1 paving is completed. Median hardscape under I-405 crossing may be installed in conjunction with Area 2 PCC work or Area 2 Pavement rehabilitation; or in conjunction with Area 1 hardscape/landscape work. Lane closures for this work are

allowed only between 9:00 a.m. and 3:30 p.m. weekdays and only between 7:30 a.m. and 4:00 p.m. on Saturdays and Sundays.

9. Irrigation systems - Irrigation systems disrupted by the Contractor shall not be left inoperable for more than three working days.
10. Tree and stump removals per 300-1.3.2(d) of these special provisions are to be performed before concrete removals.
11. A move-in period of 10 calendar days will be allowed starting on the date in the Notice to Proceed.
12. Refuse collection.

Refuse collection days are established on Mondays, unless Monday is a holiday, If so, refuse collection will occur on Tuesday.

13. It shall be the Contractor's responsibility to allow passage of the Torrance Transit System coaches through the construction area at all times. The Contractor shall notify the Torrance Transit Department at least 72 hours prior to construction affecting bus stop zones to allow said Transit System to temporarily abandon and relocate bus stop zones within the construction area.
14. Stockpile area. Schedule shall indicate date for cleanup of stockpile area.

Should the Contractor fail to meet any one or more of the above Requirements, the Engineer reserves the right to prohibit the Contractor from making further removals until the clean up, construction, or rehabilitation of any item is in conformance with the aforementioned requirements. Furthermore, if after notice is given to the Contractor to perform work to meet these requirements, and the Contractor refuses or for any reason fails to perform sufficiently to meet these schedules, CITY may perform said work and charge the Contractor for all costs incurred, including, but not limited to, additional penalties and/or damages.

6-1.4 Updates. The Contractor shall submit 2 paper copies of the updated construction schedule to the Engineer on the first working day of each month.

If the Contractor decides to make a major change in the method of operations after commencing construction, or if the schedule fails to reflect the actual progress, the Contractor shall submit to the Engineer a revised construction schedule in advance of beginning revised operations.

Full compensation for complying with all requirements of Subsections 6-1.1 and 6-1.4 Updates shall be per the Contract Unit Price for CONSTRUCTION SCHEDULE. If the Contractor fails to submit an updated Construction Schedule to the Engineer on the first working day of each month, the CITY will deduct one-fifth the amount of the Contract Unit Price for each work day after the due date, up to maximum of \$300, that each monthly schedule update is not submitted.

6-1.5 Order of Work. The Contractor shall order materials and equipment requiring a delivery delay upon receipt of a written notice from the CITY that the City Council has approved an Award of Contract. Contractor shall provide written proof(s) of timely material order(s) and shall include any delivery delays in the Construction Schedule.

6-7 TIME OF COMPLETION.

6-7.1 General. Replace the first sentence with the following:

Time shall be of the essence in the Contract. The Contractor shall begin Work after the mailing by the Engineer to the Contractor, first class mail, postage prepaid, a Notice to Proceed and shall diligently prosecute the same to completion within 100 working days from the start date specified in the Notice to Proceed.

6-8 COMPLETION, ACCEPTANCE AND WARRANTY. Replace the second paragraph with the following:

If, in the Engineer's judgment, the Work has been completed and is ready for acceptance, the Engineer will so certify and will determine the date when the Work was completed. This will be the date when the Contractor is relieved from responsibility to protect the Work. The Engineer may cause a Notice of Completion to be filed and recorded with the Los Angeles County Recorder's Office. At the Engineer's option, the Engineer may certify acceptance to the City Council who may then cause a Notice of Completion to be filed and recorded with the Los Angeles County Recorder's Office.

Add the following subsection:

6-8.1 Manufacturer's Warranties. Manufacturer's warranties shall not relieve the Contractor of liability under these Specifications. Such warranties only shall supplement the Contractor's responsibility.

The Engineer may, at his option, require a manufacturer's warranty on any product offered for use.

6-9 LIQUIDATED DAMAGES. In each of the two paragraphs, substitute \$3,000 in place of "\$250" as the amount of the liquidated damages per each consecutive calendar day.

Add the following:

Per Section 6-1.3 SPECIAL CONDITION, Contractor shall complete the work and install the new roadway structural section of asphalt concrete in each Stage within 4 calendar days after beginning the work in that Stage. **Otherwise, the City will assess a penalty of \$5,000 per calendar day to the Contractor.**

SECTION 7 - RESPONSIBILITIES OF THE CONTRACTOR

7-2 LABOR

Add the following subsections:

7-2.3 Payrolls and Payroll Records

Any payroll and payroll records required for this project shall be submitted, for each week in which any contract work is performed, to the Engineer. A retention of \$3,000 per report per pay period will be withheld from a progress payment for a late or missing report. A report shall be deemed as late or missing when not submitted to the Engineer within 10 calendar days from the

close of the pay period for which the report applies. In addition, a non-refundable deduction of \$100 per report per day may be deducted from payments due the Contractor for each late or missing report. The \$100 non-refundable deduction per day will be incurred beginning on the first day the report is late or missing.

7-2.4 Subcontractor and DBE Records

At the completion of the contract if the Contractor does not submit its Subcontractor and DBE Records to the Engineer, retention in the amount of \$10,000 per record will be withheld from a progress payment for a late or missing record. A record shall be deemed as late or missing when not submitted to the Engineer within 15 calendar days from the completion of the contract. In addition, a non-refundable deduction of \$300 per record per day will be deducted from payments due the Contractor for each late or missing record. The \$300 non-refundable deduction per day will be incurred beginning on the first day the record is late or missing.

7-3 LIABILITY INSURANCE. Replace the second sentence of the second paragraph with the following:

The Contractor must maintain at its sole expense the following insurance, which will be full coverage not subject to self-insurance provisions:

- 1) Automobile Liability, including owned, non-owned and hired vehicles, with at least the following limits of liability:
 - a). Combined single limits of \$2,000,000 per occurrence.
- 2) General Liability including coverage for premises, products and completed operations, independent contractors, personal injury and contractual obligations with combined single limits of coverage of at least \$3,000,000 per occurrence, with an annual aggregate of no less than \$5,000,000.

Add the following:

The Contractor must include all subcontractors as insured under its policies or must furnish separate certificates and endorsements for each subcontractor.

7-4 WORKER'S COMPENSATION INSURANCE. Add the following after the first sentence of the second paragraph:

Worker's Compensation Insurance shall be with limits as required by the State of California and Employer's Liability with limits of \$1,000,000 per accident.

7-5 PERMITS. Replace the second paragraph with the following:

The Contractor shall obtain a City of Torrance Business License and a no-fee Construction Excavation Permit before commencing construction. The Contractor shall obtain no-fee Electrical and Plumbing permits from the Building and Safety Department before commencing installation of new electrical services or on-site irrigation systems, as applicable.

Full compensation for complying with the above requirements shall be considered as included in the bid as an Allowance in the Bid Contract price for PERMITS AND FEES The Contractor will be reimbursed for fees paid in obtaining permits for specific activities. The

amount that shall be paid to the Contractor shall be the actual permit and inspection fees paid with no mark-up cost or extra costs, with the exception that the Contractor shall be responsible for any fees charged to re-inspect rejected or incomplete work.

7-5.2 State Encroachment Permit. A State of California Department of Transportation (Caltrans) Encroachment Permit has been obtained by the CITY and is included in Appendix IX. However, the Contractor shall submit to Caltrans, a signed application requesting a separate permit authorizing the Contractor to perform the work within Caltrans right-of-way for the CITY. The estimated Inspection Fee is \$1,148.00. The Contractor shall pay all charges, fees and bonds for this permit. The application shall be made to the State of California, Department of Transportation, 120 South Spring Street, Los Angeles, CA 90012, telephone (213) 897-3631.

Full compensation for complying with the above requirements shall be considered as included in the Allowance price for PERMIT AND FEES. The amount that shall be paid to the Contractor shall be the actual permit and inspection fees paid to the State with no mark-up or extra costs. With the exception that the Contractor shall be solely responsible for any fees charged to re-inspect rejected or incomplete work.

7-6 THE CONTRACTOR'S REPRESENTATIVE

Add a third paragraph to the section stating the following:

The Contractor's Representative shall be approved by the CITY prior to the start of the Work. If the designated representative is rejected, the Contractor shall immediately designate another representative in writing and submit to the City for consideration. The CITY shall have the authority to require the Contractor to remove its representative and/or alternate representative at any time and at no cost to the CITY.

7-8 PROJECT SITE MAINTENANCE.

7-8.1 Cleanup and Dust Control. The second paragraph is amended to read:

Unless directed otherwise by the Engineer, the Contractor shall furnish and operate a self-loading motor sweeper with spray nozzles at least once each working day to keep paved areas acceptably clean to the City whenever construction, including restoration, is incomplete.

7-8.5 Temporary Light, Power, and Water. Add the following:

The Contractor shall obtain a construction water meter from the CITY by calling Torrance Customer Service Operations ("CSO") at (310) 921-6449. A \$1,000 deposit is required and refundable upon return of the meter in good working condition. The Contractor shall pay for the water used, at the CITY's current water rates.

Some water mains in Torrance are owned/operated by California Water Service. For rental of a hydrant meter the contractor shall call California Water Service at (310) 257-1400.

7-8.6 Water Pollution Control. Add the following subsections:

7-8.6.1 NPDES General Permit, Notice of Intent (NOI) and Notice of Termination (NOT).

Construction activities including clearing, grading and excavating that result in land disturbances of equal to or greater than one acre are covered by the National Pollutant Discharge Elimination System General Construction Permit, State Water Board Order No. 2009-0009-DWQ. Dischargers obtaining coverage will file electronically for coverage under Order No. 2009-0009-DWQ. Order No. 2009-0009-DWQ is a Risk Based permitting approach. The Contractor is required to review the State Water Resources Control Board website and determine this project's risk level.

Order No. 2009-0009-DWQ includes, in Attachment A, requirements for all Linear Underground/Overhead Projects (LUPs) that are covered under the Small LUP General Permit 2003-007-DWQ. LUPs will be broken into project segments designated as LUP Type 1, Type 2, and Type 3. These LUP Types are analogous to the risks levels for traditional construction projects.

This General Construction Permit regulates pollutants in discharges of storm water associated with construction activity. To obtain authorization for proposed storm water discharges, pursuant to this General Construction Permit, the City must submit to the Storm Water Multiple Application and Reporting Tracking System (SMARTS) a Notice of Intent (NOI), Notice of Termination (NOT), compliance and monitoring data and Annual Reports when required. The Contractor shall provide to the City, at the required time, all required information necessary for the City to comply with these requirements.

The Contractor shall provide to the City its Storm Water Pollution Prevention Plan (SWPPP) both in hardcopy and pdf format, so the City may submit the SWPPP to the SMARTS online system.

Following construction and the Contractor's installation of any post-construction storm water Best Management Practices (for City approval), the Contractor shall notify the City in writing to request for consideration to terminate coverage under the General Construction Permit for a complete project and to submit a NOT via the SMARTS system.

Full compensation for preparation, administration and all other incidental work related to the NOI, NOT, construction, and post-construction BMPs, sampling, analysis and reporting as required by Order No. 2009-0009-DWQ and all other related costs shall be considered as included in the bid for NPDES COMPLIANCE

7-8.6.2 Storm Water Pollution Prevention Plan (SWPPP).

Construction activities covered by the General Permit require submittal by the Contractor of a Storm Water Pollution Prevention Plan (SWPPP) prior to the start of any clearing, demolition, grading or excavation. A Storm Water Pollution Prevention Plan (SWPPP) shall be defined as a report that includes site map(s), identification of construction and contractor activities that could pollute storm water, and a description of measures and practices to control the potential pollutants. The preparation and implementation of the SWPPP is intended to ensure that the Contractor will make every reasonable effort to prevent the pollution of water resources during the period of construction. The size and nature of this Contract place it under the regulations of the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharge Associated with

Construction Activity. In the State of California, these regulations are adopted by the State Water Resources Control Board. These regulations require a SWPPP for any work where clearing, grading, and excavation result in a land disturbance of one or more acres. As a result, the Contractor shall prepare, submit to the CITY for review and approval, and implement a SWPPP for this Contract in compliance with these regulations.

The SWPPP, and any requested revisions thereto, shall be submitted to the CITY for review and approval. The SWPPP must be approved by the City, filed by the City on SMARTS and a WDID # issued, prior to the commencement of construction operations. The Contractor will be responsible for any costs or delays, should the contractor not timely submit the initial SWPPP and/or timely revise the SWPPP, should revisions be needed. The City will require a minimum of 5 working days to review each SWPPP submittal and revision, thereto. Subsequent to filing for the NOI on the SMARTS, the Contractor shall allow for 2 working days for issuance of the WDID #. The SWPPP shall remain on the construction site while site is under construction, during working hours, commencing with the initial construction activity and ending with Notice of Termination.

If, during construction operations, field conditions change in a manner which, in the opinion of the Engineer, significantly deviates from how the SWPPP, as approved by the CITY, addressed the current construction operation, the Engineer may direct the Contractor to revise the current construction operation and/or the SWPPP. Such directions will be made in writing and will specify the items of work for which the SWPPP is inadequate. No further work on these items will be permitted until the Contractor revises the construction operations to the satisfaction of the Engineer and/or until the Contractor submits a revised SWPPP and receives CITY approval. The Engineer will notify the Contractor of the acceptance or rejection of the revised SWPPP within seven (7) working days from the date of submittal.

Full compensation for preparation of the SWPPP, revisions to the SWPPP, and all other related costs shall be considered as included in the lump sum bid price for STORMWATER POLLUTION PREVENTION PLAN.

7-8.6.3 Best Management Practices. Best Management Practices (BMPs) shall be defined as any program, technology, process, siting criteria, operating method, measure, or device which controls, prevents, removes, or reduces pollution. The Contractor shall obtain and refer to the California Storm Water Best Management Practice Handbooks, Volume 3 Construction BMP Handbook and the Los Angeles County Department of Public Works Best Management Practices

Handbook for Construction Activities. These publications are available from:

Los Angeles County
Department of Public Works - Cashier's Office
900 S. Fremont Avenue
Alhambra, CA 91803
Telephone (626) 458-6959

The Contractor shall have a minimum of two (2) readily accessible copies of each publication on the Work site at all times.

The Contractor shall implement BMPs in conjunction with the following construction operation and activities:

CONSTRUCTION PRACTICES	Clearing, Grading and Excavating
	Water Conservation Practices
	Dewatering
	Paving Operations
	Structure Construction and Painting
MATERIAL MANAGEMENT	Material Delivery and Storage
	Material Use
	Spill Prevention and Control
WASTE MANAGEMENT	Solid Waste Management
	Hazardous Waste Management
	Contaminated Soil Management
	Concrete Waste Management
	Sanitary/Septic Waste Management
VEHICLE AND EQUIPMENT MANAGEMENT	Vehicle and Equipment Cleaning
	Vehicle and Equipment Fueling
	Vehicle and Equipment Maintenance

The Contractor shall implement the following BMPs in conjunction with the previously listed construction operation activities:

VEGETATIVE STABILIZATION	Scheduling of Planting
	Preservation of Existing Vegetation
	Temporary Seeding and Planting
	Mulching
PHYSICAL STABILIZATION	Geotextiles and Mats
	Soil Stabilizer/Dust Control
	Temporary Stream Crossing
	Stabilized Construction Roadway
	Stabilized Construction Entrance
RUNOFF DIVERSION	Sodding, Grass Plugging, and Vegetative Buffer strips
	Earth Dikes, Drainage Swales, and Lined Ditches
	Top and Toe of Slope Diversion Ditches/Berms
	Slope Drains and Subsurface Drains

VELOCITY REDUCTION	Flared Culvert End Sections
	Outlet Protection/Velocity Dissipation Devices
	Check Dams
	Slope Roughening/Terracing/Rounding

SEDIMENT TRAPPING	Slit Fences
	Straw Bale Barrier
	Sand Bag Barrier
	Brush or Rock Filter
	Storm Drain Inlet Protection
	Sediment Traps
	Sediment Basin

Additional BMPs may be required as a result of a change in actual field conditions, Contractor activities, or construction operations. When more than one BMP is listed under each specific BMP category, the Contractor shall select the appropriate and necessary number of BMPs within each category in order to achieve the BMP objective.

BMPs for Contractor activities shall be continuously implemented throughout the year. BMPs for erosion control and sedimentation shall be implemented during the period from October 15 to April 15, and whenever the National Weather Service predicts rain within 24 hours. BMPs for erosion control and sedimentation shall also be implemented prior to the commencement of any Contractor activity or construction operation that may produce run-off, and whenever run-off from other sources may occur.

The CITY, as a Permittee, is subject to enforcement actions by the State Water Resources Control Board, the Environmental Protection Agency and private citizens. The CITY may assess the Contractor a penalty of \$1,000 for each calendar day that the Contractor has not fully implemented the appropriate BMPs and/or is otherwise in noncompliance with these provisions. In addition, the CITY will deduct, from the final payment due the Contractor, the total amount of any fines levied on the CITY, plus legal and staff costs, as a result of the Contractor's lack of compliance with these provisions and/or less than complete implementation of the appropriate BMPs.

7-8.6.4 Payment Full compensation for implementation and maintenance of BMPs, including the construction, removal, and the furnishing of all necessary labor, equipment, and materials, shall be considered as included in the lump sum price bid for the STORM WATER POLLUTION PREVENTION PLAN.

Add the following subsections:

7-8.8 Contractor's Storage Yard. The Contractor shall be responsible for obtaining a storage yard for the duration of the Work. If the proposed location of the yard is located within the boundaries of the CITY, the Contractor shall obtain prior approval from the Engineer.

7-8.9 Graffiti Removal. The Contractor shall maintain the Work, all of its equipment, and all traffic control devices, including signage, free of graffiti throughout the duration of the Contract. The Contractor shall respond to any request from the Engineer to remove graffiti within 4 hours of notification. Should the Contractor fail to respond to such request, the CITY reserves the right to make other arrangements for the requested graffiti removal and deduct the cost from any monies due the Contractor.

7-9 PROTECTION AND RESTORATION OF EXISTING IMPROVEMENTS.

Add the following paragraph:

The Contractor shall be responsible to protect all new concrete work from being etched, scratched or otherwise marked or having wet slough material deposited thereon. If new concrete work is marked, the Contractor shall replace it at its expense in accordance with Subsection 303-5.7 of these special provisions.

The Contractor shall perform all private lawn, hardscape, and parkway restorations, (not included in the project plans) including restoration of irrigation systems and existing curb drains within five (5) days after the adjacent improvements have been constructed at its own expense. The Contractor shall not delay restorations for tree plantings.

Add the following subsections:

7-9.1 Replacement of Lawns. When the Contract requires the removal and replacement of lawns or sod, including parkways, the Contractor shall comply with the following minimum requirements: the area to be replanted shall be regraded and covered with two inches of an approved topsoil; the grass seed or sod shall be for grass or sod of the same type as was removed, or an approved equal, and grass shall be sown at the rate recommended by the seed distributing company; Bandini steer manure or approved equal shall be applied to the planted area at the rate recommended by the vendor. The Contractor shall water and care for replaced lawns until the grass has attained a complete cover and has been given its first cutting, unless other arrangements are made with the property owners. The lawn restoration, as above described, shall be completed prior to the final payment.

Topsoil shall be in accordance with Subsection 212-1.1.

7-9.2 Replacement of Sprinkler Systems. Damaged sprinklers shall be replaced so that the area watered by the original system will be adequately watered by the reconstructed system without undue waste of water. Overspray on any area no longer planted should be avoided, and any revised shape or layout of the remaining planted area will be adequately watered. Any additional material or work required to obtain said adequate coverage shall be furnished by the Contractor, at its expense. The Contractor shall be responsible to replace any lawn or plant damaged from lack of irrigation resulting from the Contractor's operations, at its expense, to the satisfaction of the Engineer.

7-9.3 Parkway Trees. The Contractor shall exercise all necessary precautions so as not to damage or destroy any trees or shrubs and shall not trim or remove any trees unless such trees have been approved for trimming or removal by the Engineer. All existing trees and shrubs that are damaged during construction shall be trimmed or replaced by the Contractor or a certified tree company to the satisfaction of the Engineer. Tree trimming and replacement shall be accomplished in accordance with the following requirements:

- (a) Trimming. Symmetry of the tree shall be preserved; no stubs, splits torn branches or torn roots left; clean cuts to be made close to trunk or large branch. Spikes shall not be used for climbing live trees. All cuts over one and one-half inches in diameter shall be coated with a suitable tree wound paint as approved by the Engineer.

- (b) Replacement. The Contractor shall immediately notify the Engineer if any tree is damaged by its operations. If, in the opinion of the Engineer, the damage is such that replacement is necessary, the Contractor shall replace the tree at its own expense. The tree shall be of a like variety as the tree damaged, subject to the approval of the Engineer. The size of the tree shall be a minimum of 24" box size.

7-9.4 Street Furniture. The Contractor shall be responsible for removal, storage and replacement of trash receptacles, bus benches, bus enclosures, newspaper boxes, mail boxes, etc. and coordination with the Owners as required throughout construction. Replacement of the removed items shall be per the direction of the Owner or Engineer. Payment for such work shall be considered as part of bid item for Mobilization.

7-9.5 Protection of Existing Pavement Surfaces from Tack Coat and Oil. When work requires the placement of a tack coat pursuant to Subsection 302-5.4, the Contractor shall protect existing pavement surfaces outside of the work limits from the spreading of tack coat and oil adhering to truck tires exiting work area. The protected area shall extend the full width of the street and be by either of the following methods:

- 1) The Contractor shall wet the existing pavement surface to a distance of ten (10) feet away from the work limit. The wetted area shall be maintained as such until placement of asphalt concrete pavement is completed; OR
- 2) The Contractor shall provide a thin spreading of sand or rock dust material to a distance of five (5) feet away from the work limit. The sand or rock dust area shall be maintained as such until placement of asphalt concrete pavement is completed. The Contractor shall be responsible to remove the sand or rock dust immediately after the placement of asphalt concrete pavement is completed.

7-9.6 Curb Addresses. The Contractor shall be responsible to repaint addresses (4-inch high black numbers on white background) on curb faces when printed addresses have been removed due to curb construction.

7-9.7 Red Curb. The Contractor shall be responsible to repaint curb with the color "red" or matching color, when existing colored curb have been removed due to curb construction.

7-10 PUBLIC CONVENIENCE AND SAFETY

7-10.1 Traffic and Access. Replace the fourth paragraph with the following:

Vehicular access to residential driveways shall be maintained to the property line except when necessary construction precludes such access. When the Contractor begins excavation of a residential driveway, safe access shall be provided within 4 hours and not later than the end of the same workday in which excavation began.

Add the following before the last paragraph:

The Contractor shall provide the necessary measures to prevent public access to private residences during removal and replacement of existing barrier structures, such as wood and chain link fences, during non-working hours.

The Contractor shall be responsible to provide at least 48 hours written notice to each affected property before closing or partially closing any driveway or pedestrian access.

Unless the Contractor makes other arrangements satisfactory to the owners, the Contractor shall provide and maintain safe, adequate vehicular access to places of business and public gathering as stated herein below:

- (a) For each establishment (such as, but not limited to, gas stations, markets, and other "drive-in" business) on the corner of an intersection, which has a driveway (or driveways) on each intersecting street, the Contractor shall provide vehicular access to at least one driveway on each intersecting street insofar as the access is affected by the Contractor's operations.
- (b) For each establishment (such as, but not limited to, motels, parking lots and garages) which has a one-way traffic pattern with the appropriate entrance driveway and exit driveway, the Contractor shall provide vehicular access to the entrance driveway and the exit driveway insofar as the access is affected by the Contractor's operations.
- (c) The Contractor shall provide vehicular access to all schools and parking lots including, but not limited to, apartment building parking lots.
- (d) The Contractor shall provide vehicular access to all establishments requiring such access for receiving or delivering materials or supplies.
- (e) The Contractor shall make every reasonable effort to provide maximum access to churches on their Sabbath days. In addition, the Contractor shall not park or store equipment at the site of a church on its Sabbath days.
- (f) At least three (3) days prior to starting work in any location, the Contractor shall distribute written notices to all homeowners and residents that will be impacted by the work. The City will provide the notice.
- (g) The Contractor shall provide a minimum 1-inch thick temporary asphalt surface for an access ramp or sidewalk if it is not able to install the permanent improvement within 5 working days following the removal of the existing material at any location. The offset at any transverse or longitudinal joint shall not be more than one-half (1/2) inch. On the temporary asphalt surface: the running slope shall not exceed 1:20; the cross slope shall not exceed 1:50. The Contractor shall not be allowed any additional compensation for the installation and removal of temporary asphalt.
- (h) The Contractor shall protect the work from traffic.

Should any change in these requirements be necessitated by extraordinary occurrences or requirements during the execution of the Work, the Contractor shall obtain prior written approval of the Engineer.

Add the following subsections:

7-10.1.1 Traffic Control Plan (TCP)

The approved TCP included in the Contract shall be strictly adhered to, and the Contractor hereby understands and agrees that its failure to provide any facility or device as shown on the TCP, or its deviation from said Plan, unless otherwise approved by the Engineer shall constitute a breach of Contract

Full compensation for complying with the submittal requirements, furnishing, placing, maintaining and removing traffic control, including temporary signs, shall be on a lump sum basis per the Contract Unit Price for TRAFFIC CONTROL

7-10.1.2 Minimum Requirements for Maintaining Traffic Flow. The Contractor shall observe the following minimum requirements:

- a) Unless otherwise shown on the Traffic Control Plans, permitted by this Contract or authorized by the Engineer, all roadways, driveways, travel and turning lanes, sidewalks and access ramps shall remain open at all times.
- b) Access to businesses and residents shall be maintained at all times at locations where driveways are to be replaced.
- c) Any travel lane adjacent to the curb and within the work zone shall be, at a minimum, a twelve (12) foot-wide lane.
- d) At a minimum, the Contractor shall maintain two (2) twelve (12) foot wide through lanes open in each direction during allowed working hours, except during the pavement reconstruction work. All travel lanes shall be kept open all other times.
- e) Reduction in lane requirements or changes to the Contract Traffic Control plans may be afforded only with prior approval from the Engineer.
- f) Traffic signs, flaggers, warning devices, safety traffic devices and, on select streets, electronic arrow boards for diverting and directing traffic shall be furnished, installed and maintained by the Contractor throughout the project.
- g) The Contractor must provide access through the work zone in non-working hours by means of temporary ramps. Open trenches shall either be covered by steel plates, or ramped with crushed miscellaneous base. No drop-off at either transverse or longitudinal joints shall be allowed at any time. Temporary ramps, including those for driveway access, shall be constructed with either crushed miscellaneous base or temporary asphalt, as appropriate, with a minimum of 1" to 12" slope in both longitudinal and transverse directions.

All costs for the above requirements shall be included in the Contract Lump Sum Price for TRAFFIC CONTROL.

7-10.1.3 Temporary Pavement Markings. If permanent pavement markings cannot be restored by the end of the work shift in which they were obliterated, temporary markings shall be provided by the Contractor prior to leaving the Work site on all streets except any street closed to through traffic. These temporary markings shall be as follows:

Temporary lane lines and/or centerlines shall consist of day/night reflectorized raised pavement markers, approved by the Engineer, spaced approximately twenty-four (24) feet apart. A list of approved day/night reflectorized raised pavement markers may be obtained from the CITY.

Where approved by the Engineer, the Contractor may use reflectorized lines approximately twenty-four (24) inches long and four (4) inches wide, spaced approximately twenty-four (24) feet apart.

All temporary pavement markings and signs shall be maintained, or replaced as necessary by the Contractor, until permanent pavement markings are restored.

Full compensation for establishing, furnishing, placing, maintaining, and sandblasting of temporary markings/striping shall be included in the Contract Lump Sum Price for TRAFFIC CONTROL and no extra cost will be allowed.

7-10.1.4 Temporary Pavement Markers/Delineation. Temporary pavement delineation shall be furnished, placed, maintained and removed in accordance with the provisions of Subsection 12-3.01, of the Caltrans Standard Specifications. Nothing in these Special Provisions shall be construed as to reduce the minimum standards specified in the Manual of Traffic Controls published by Caltrans or as relieving the Contractor from responsibility as provided in Subsection 7-10 of these Special Provisions.

Whenever the work causes obliteration of pavement markers and/or delineation, the Contractor shall set in place temporary pavement markers/delineation prior to opening the traveled way to traffic. All pavement markers/delineation, including but not limited to lane lines, centerlines, directional arrows, pavement legends, etc, shall be provided at all times for traveled ways open to traffic.

All work necessary to establish temporary pavement markers/delineation shall be performed by the Contractor. Surfaces on which temporary pavement delineation is to be applied shall be cleaned of all dirt and loose material and shall be dry when the pavement delineation is applied. Temporary pavement markers/delineation shall not be applied over existing pavement delineation or other temporary pavement delineation.

Temporary pavement markers/delineation shall be maintained until replaced with permanent pavement markers/delineation. Temporary pavement delineation shall be removed when 1) it conflicts with the permanent pavement delineation; 2) a new traffic pattern is established or 3) as determined by the Engineer.

Temporary pavement delineation shall consist of temporary reflective raised pavement markers placed on lane lines and centerlines at longitudinal intervals of not more than 24 feet apart. Temporary reflective raised markers shall be the same color as the lane line or centerline the markers replace. Temporary reflective raised pavement markers shall be, at the option of the Contractor, one of the following or approved equal:

Apex Universal Product No. 2SCSM-1W or 2SCSM-2Y markers manufactured by Apex Universal, 11033 Forest Place, Santa Fe Springs, CA 90607, Telephone (562) 944 8878.

Flex-O-Lite Raised Construction Marker (RCM), manufactured by Flex-O-Lite, Lukens Company, P.O. Box 4366, St. Louis, MO 63123-0166, Telephone (800) 325-9525.

Temporary reflective raised pavement markers shall be placed as directed by the Engineer. Temporary reflective raised pavement markers shall be applied to the pavement surface with the adhesive in accordance with the manufacturer's instructions. Epoxy adhesive shall not be used to apply temporary reflective raised pavement markers in areas where the pavement will not be removed.

Temporary lane line or centerline delineation consisting of temporary reflective raised pavement markers placed on longitudinal intervals of not more than twenty-four (24) feet, shall be used on lanes opened to public traffic for a maximum of fourteen (14) days. Prior to the end of the fourteen (14) days the planned permanent pavement delineation, except permanent pavement markers, shall be placed. If the planned permanent pavement delineation, exclusive of permanent pavement markers, is not placed within fourteen (14) days, the Contractor shall provide, at its expense, additional temporary pavement delineation as directed by the Engineer. The additional temporary pavement delineation to be provided shall be equivalent to the pattern specified for the permanent traffic lines as determined by the Engineer.

Full compensation for furnishing, placing, maintaining, and removing the temporary pavement markers/delineation shall be considered as included in the Contract Lump Sum Price for TRAFFIC CONTROL.

7-10.1.5 Temporary "No Parking" Signs. The Contractor is responsible to post "Temporary No Parking" signs at least forty-eight (48) hours in advance of the first date of work and the required enforcement. If work is to begin on either a Monday or Tuesday, the Contractor shall post the signs on a Friday. Each sign must include text indicating the beginning and end dates and the hours in effect. "Tow-Away" and "No Parking" must be shown on each sign face. If it is required to temporarily restrict parking 24 hours/day then "Tow-Away" and "No Parking Anytime" must be shown on each sign face. The signs shall be mounted on either 1" x 2" X 3' high wood stakes, Type II barricades, or 39-inch high delineators. Signs shall be spaced at approximately 100' intervals on the effected side(s) of the street. Signs shall not be posted on trees, traffic signal poles, utility poles, street lights, or any other street furniture.

Signs shall be professionally made of moisture-resistant, heavy duty cardboard or other approved material. All signs shall be maintained by the Contractor and kept free of graffiti. Any sign that becomes illegible or is removed shall be replaced within twenty-four (24) hours. The Contractor shall only be permitted to restrict parking for the minimum time necessary to complete on-going work. The Contractor shall be responsible to remove and repost "Temporary No Parking" signs when work will be delayed for more than five (5) consecutive days, or if the work must go beyond the end date shown on the signs, or otherwise directed by the Engineer.

The Contractor shall obtain approval for the signs and the placement thereof from the Engineer. Immediately after this approval and posting, the Contractor shall notify Torrance Police Department, Traffic Division, at (310) 618-5557 for review and enforcement. The parking restriction cannot be enforced until the signs have been in place 48 hours and the Police notified.

The Contractor shall maintain said signs through the day of work, and shall remove all of said signs on or within one (1) calendar day of the completion of work within the restricted parking area.

Full compensation for furnishing, placing, maintaining and removing temporary signs shall be considered as included in the Contract Price for TRAFFIC CONTROL.

7-10.1.6 Trash Collection. Trash pick up days are established and will not be changed. Consult the Engineer regarding trash pick up schedule. The Contractor shall ensure streets and alleys affected by the work are accessible to the CITY's automated trash trucks on designated pick up days. In alleys, Contractor shall be responsible to provide and maintain access to large trash containers during the course of the work.

7-10.1.7 Protection of Permanent Pavement Markings, Manholes, Valves. The Contractor shall cover and/or protect existing raised pavement markers, thermoplastic legends and markings, valve and manhole covers, utility caps, and similar items from damage and discoloration.

The contractor shall be responsible for replacing or restoring any damaged items.

Full compensation for the items in this subsection shall be considered as included in the Contract Lump Sum Price for TRAFFIC CONTROL.

7-10.3 Street Closures, Detours, Barricades.

Add the following paragraph after the first paragraph:

In addition to the requirements of this subsection, the Contractor shall conform to the requirements for street closures, detours, and barricades as stipulated in the Special Provisions. However, deviations from the requirements stipulated in the Special Provisions may be permitted upon written approval of the City Engineer when such deviations are in the best interest of the City.

Replace the second paragraph with the following:

The Contractor shall notify the Engineer at (310) 781-6900, at least ten (10) working days in advance of closing or partially closing any street or alley and comply with their requirements.

In addition, the Contractor shall notify the following offices at least two working days in advance prior to any street closure, or partial closure, or restriction to access:

Torrance Police Department	(310) 618-5557
Torrance Fire Department	(310) 781-7040
Torrance Sanitation Division	(310) 781-6904
United States Post Office	(310) 222-5902
Torrance Transit Department (Bus Operations)	(310) 618-6927

The Contractor shall immediately notify the above parties upon completion of the construction work and opening or reopening of any street or alley.

Add the following:

The Contractor shall install, maintain, and remove all temporary delineators, barricades, lights, warning signs and other devices necessary to control traffic as specified in the project plans and these specifications. Materials for a temporary facility may be provided from new or used materials. If used materials are provided, they shall be sound, in good condition and otherwise meet the requirements of new materials. All traffic control devices shall be free of graffiti, and the Contractor shall be responsible to immediately clean and/or replace any device to the satisfaction of the Engineer.

Full compensation for furnishing, installing, maintaining and removing the above traffic control devices shall be considered as included in the Contract Lump Sum Price for TRAFFIC CONTROL.

Where streets in which improvements are being constructed are specified hereinafter to be closed to through traffic, it shall be understood that such closures shall apply only to the portions of such streets where construction is actually in progress.

Revise the final sentence of the third paragraph to include:

Except as modified hereinafter or within the Special Provisions.

Add the following paragraph after the third paragraph:

The Contractor shall conform to Subsection 74.6.8 of the Torrance Municipal Code. In addition, the Contractor shall comply with directions from the Engineer to provide protection at excavations, trenches and/or other potentially hazardous construction areas. The Contractor shall be required to erect temporary railing (Type K) per Caltrans Standard Plan T3, five-foot high chain link fences, or equivalent protection, to completely enclose all open excavations over three feet (3') in depth. Fencing shall be approved by the Engineer, and provide adequate security. Fencing may be removed during working hours to the extent necessary to provide access and working room, in which case the Contractor shall provide equivalent security, to the satisfaction of the Engineer, during said periods. Any excavation not secured to the satisfaction of the Engineer shall be completely backfilled prior to the end of each day's construction activities. The Engineer may require additional security devices, lighting or other protection in addition to said fencing. Full compensation for furnishing, placing and removing temporary protection shall be considered as included in the price for the various items of work.

7-10.3.1 Temporary Steel Plates. When backfilling operations of an excavation in the traveled way, whether transverse or longitudinal cannot be properly complete within a work day, steel plate bridging with a non-skid surface and shoring may be required to preserve unobstructed traffic flow. In such cases, the following conditions shall apply:

1. Steel plate used for bridging shall extend a minimum of 12-inches beyond the edges of the trench.
2. Steel plate bridging shall be installed to operate with minimum noise.
3. The trench shall be adequately shored to support the bridging and traffic loads
4. Temporary paving with cold asphalt concrete shall be used to feather the edges of the plates, if plate installation by Method (2) described below, is used.
5. Bridging shall be secured against displacement by using adjustable cleats, shims, or other devices.

Steel plate bridging and shoring shall be installed using either the following Method:

Approach plate(s) and ending plate (if longitudinal placement) shall be attached to the roadway by a minimum of two (2) dowels pre-drilled into the corners of the plate and drilled 2-inches into the pavement. Subsequent plates are butted to each other. Fine grade asphalt concrete shall be compacted to form ramps, maximum slope of 8.5% with a minimum 12- inches taper to cover

all edges of the steel plates. When steel plates are removed, the dowel holes in the pavement shall be backfilled with either graded fines of asphalt concrete mix, concrete slurry or an approved equal that is satisfactory to the City.

The Contractor shall be responsible for maintenance of the steel plates, shoring and asphalt concrete ramps.

The following table shows the advisory minimal thickness of steel plate bridging required for a given trench width (A-36 grade steel, designed for HS20-44 truck loading).

<u>Trench Width</u>	<u>Minimum Plate Thickness</u>
10"	1/2"
1'-11"	3/4"
2'-7"	7/8"
3'-5"	1"
5'-3"	1 1/4"

For spans greater the 5'-3" a structural design shall be prepared by a California registered civil engineer.

All steel plates within the right-of-way whether used in or out of the travel way shall be without deformation. Steel plates shall be non-skid. Advanced signs shall be required for steel plates within traveled ways (Type P per the Watch Manual or a Rough Road sign (W33) per Caltrans requirements).

7-13 LAWS TO BE OBSERVED

Add the following:

The Contractor shall obtain a CITY of Torrance Business License and a no-fee Construction Excavation Permit before commencing construction. The Contractor shall obtain no-fee Electrical from the City before commencing installation of new on-site irrigation systems, as applicable.

Add the following subsection:

7-15 PROJECT CONSTRUCTION SIGNS AND PORTABLE CHANGEABLE MESSAGE SIGNS.

The Contractor shall furnish and install signs at locations to be determined by the Engineer. The signs shall be per detail as shown in Appendix VIII of these Special Provisions.

Full compensation for furnishing, installing, maintaining and removing signs shall be per the Contract Unit Price for PROJECT CONSTRUCTION SIGNS.

The Contractor shall furnish and install six (6) Portable Changeable Message signs (PCMS) on the construction site for use during construction. Each PCMS shall be manufactured by Solar Tech and be model MB2 (contact BC Rentals at (714) 279-6868 for information). The Contractor shall install a locking device on each PCMS to prohibit access to the computer keyboard. The Contractor shall provide to the Engineer the key or combination to each locking device and the computer password to each PCMS Contractor shall relocate each PCMS as directed by Engineer at no additional cost to the City.

Full compensation for furnishing, installing, maintaining, entering/modifying message screens, relocation on the job site and removal shall be per the Contract Lump Sum Price for PORTABLE CHANGEABLE MESSAGE SIGNS. If the Contractor does not possess the equipment or tools, or fails on any working day, to enter or modify a message for a PCMS, the Engineer may deduct \$50 per day, per each PCMS, from a Progress Payment until said message is entered or modified.

SECTION 9 - MEASUREMENT AND PAYMENT

9-1 MEASUREMENT AND PAYMENT. Add the following sections:

9-1.2.1 Payment for Labor and Materials.

The Contractor shall pay and cause the subcontractors to pay any and all accounts for labor, including Worker's Compensation premiums, State Unemployment and Federal Social Security payments and all other wage and salary deductions required by law. The Contractor also shall pay and cause the subcontractors to pay any and all accounts for services, equipment and materials used by it and the subcontractors during the performance of work under this contract. All such accounts shall be paid as they become due and payable. If requested by the Engineer, the Contractor shall immediately furnish the City with proof of payment of such accounts.

9-1.2.2 Measurement and Payment

Payment of each item will include full compensation for furnishing all labor, materials, tools, equipment and backup equipment; transportation and technical competence for performing all work necessary to complete each item as indicated on the plans and as specified in these Contract Documents, including but not limited to obtaining all applicable certifications necessary for specialty personnel and major equipment in conformance with Subsection 7-5, and all other applicable permits; securing a storage yard to store all equipment and materials to be used on the job, disposal of waste materials, restoration of the site, etc. The storage yard may also be used as a temporary storage for excavated materials, and traffic control items.

9-2 LUMP SUM WORK. Replace the second paragraph with the following:

The Contractor shall, within five (5) working days of receipt of a request from the Engineer, submit a complete breakdown of lump sum bid prices showing the value assigned to each part of the work, including an allowance for profit and overhead. In submitting the breakdown, the Contractor certifies that it is not unbalanced and that the value assigned to each part of the work represents its estimate of the actual cost, including profit and overhead, of performing that part of the work. The breakdown shall be sufficiently detailed to permit its use by the Engineer as one of the bases for evaluating requests for payment. No extra costs shall be allowed for providing these breakdowns.

9-3 PAYMENT.

9-3.2 Partial and Final Payment. Replace the third paragraph with the following:

For each progress estimate, 5 percent will be deducted and retained by the CITY, and the remainder less the amount of all previous payments will be paid. In addition, 125% of the amount of outstanding "Stop Notices" shall be withheld.

Add the following:

The Contractor shall submit all requests for payment on a Progress Payment Invoice to be provided by the CITY.

Prior to submittal of said invoice, all items for which payment is requested shall be checked and approved in writing by the Engineer. No payments will be made unless all back-up data is submitted with the payment request and the Progress Payment Invoice is signed by both Contractor and Engineer.

9-3.4 Mobilization. Replace the entire subsection with the following:

Mobilization shall be not more than five percent (5%) of the total contract bid and shall include the provisions of the Construction Schedule; Emergency Response Plan; site review; obtaining all permits, insurance, and bonds; moving onto the site all plant and equipment; furnishing and erecting plants, potholing, temporary buildings, and other construction facilities, and removal of same at completion of the Work; and other work, all as required for the proper performance and completion of the Work.

Mobilization shall include, but not be limited to, the following items:

- (a) Moving on to the site of all Contractor's plant and equipment required for the first month's operations.
- (b) Installing temporary construction power and wiring.
- (c) Establishing fire protection system.
- (d) Developing construction water supply.
- (e) Providing on-site sanitary facilities and portable water facilities, as required.
- (f) Arranging for, and erection of Contractor's work and storage yard.
- (g) Submittal of all required insurance certificates and bonds, including subcontractors.
- (h) Obtaining all required permits.
- (i) Posting all OSHA required notices and establishment of safety programs.
- (j) Potholing and other research and review as necessary to verify site conditions and utility locations
- (k) Having the Contractor's Superintendent present at the job site full-time.
- (l) Removals, cleanup, and restoration including but are not limited to the removal of all USA and/or other painted markings on concrete or asphalt surfaces following best management practices. If the removal method chosen is by pressure

washing, the catch basins shall be protected at all times. All water and debris resulting from this clean-up method shall be swept up and/or vacuumed. Alternatively, a wire brush and a graffiti removal spray can be used.

Full compensation for Mobilization/Demobilization and all other related costs shall be per the Contract Lump Sum Price for MOBILIZATION.

9-3.5 Noncompliance with Plans and Specifications. Add the following section:

Failure of the Contractor to comply with any requirement of the Plans and Specifications, and/or to immediately remedy any such noncompliance upon notice from the Engineer, may result in suspension of Contract Progress Payments. Any Progress Payments so suspended shall remain in suspension until the Contractor's operations and/or submittals are brought into compliance to the satisfaction of the Engineer. No additional compensation shall be allowed as a result of suspension of Progress Payments due to noncompliance with the plans or specifications. The Contractor shall not be permitted to stop work due to said suspension of Progress Payments.

9-4 CLAIMS.

The Contractor shall not be entitled to the payment of any additional compensation for any cause, including any act, or failure to act, by the CITY, or the happening of any event, thing or occurrence, unless the Contractor shall have given the CITY due written notice of potential claim as hereinafter specified.

The written notice of potential claim shall set forth the reasons for which the Contractor believes additional compensation will or may be due, the nature of the costs involved, and, insofar as possible, the amount of the potential claim. Said notice shall be submitted on a form approved by the CITY at least forty-eight (48) hours (two working days) in advance of performing said work, unless the work is of an emergency nature, in which case the Contractor shall notify and obtain approval from the Engineer prior to commencing the work. The Engineer may require the Contractor to delay construction involving the claim, but no other work shall be delayed, and the Contractor shall not be allowed additional costs for any said delay but may be allowed an extension of time if the Engineer agrees that the work delayed is a controlling element of the Construction Schedule. The Contractor shall be required to submit any supporting data (or a detailed written explanation justifying further delay) within five (5) work days of a request from the Engineer and shall be responsible for all costs associated with any delays resulting from late and/or incomplete submittals. By submitting a Bid, the Contractor hereby agrees that this subsection shall supersede Subsection 6-6.3 and 6-6.4 of the Standard Specifications.

It is the intention of this subsection that differences between the parties arising under and by virtue of the Contract be brought to the attention of the Engineer at the earliest possible time in order that such matters may be settled, if possible, or other appropriate action promptly taken. The Contractor hereby agrees that it shall have no right to additional compensation for any claim that may be based on any such act, failure to act, event, thing or occurrence for which no written notice of potential claim as herein required was timely filed.

PART 2 - CONSTRUCTION MATERIALS

SECTION 200 – ROCK MATERIALS

200-2 UNTREATED BASE MATERIALS

200-2.1 General. Replace the entire subsection with the following:

Untreated base for pavement, curb, gutter, driveways, hardscape and other improvements shall be Crushed Miscellaneous Base conforming to 200-2.4.

SECTION 203 – BITUMINOUS MATERIALS

203-6 ASPHALT CONCRETE.

203-6.1 General. Add the following:

Asphalt concrete shall be Class and Grade C2-PG64-10 for the 3-inch thick surface course over Class and Grade B-PG64-10 for the 4-inch thick base course for the area between 190th & 182nd Streets.

Asphalt concrete shall be Class and Grade C2-PG64-10 for the 1.5-inch thick course for the cold milled area north of 182nd Street.

SECTION 209 – STREET LIGHTING AND TRAFFIC SIGNAL MATERIALS

209-5.8.2 Inductive Loop Detectors.

Delete entire subsection and replace with Section 86-5.01A of the Caltrans Standard Specifications (latest edition).

Inductive Loop Detectors shall be Type E per Caltrans Standard Plan ES-5B

SECTION 210 – PAINT AND PROTECTIVE COATINGS

210-1 PAINT

210-1.6 Paint for Traffic Striping, Pavement Marking, and Curb Marking

210-1.6.1. General. Add the following:

All permanent striping and pavement markings shall be hot applied alkyd thermoplastic in accordance with the provisions of Subsection 84-2.02 of the Caltrans Standard Specifications.

210-1.6.2. Thermoplastic Paint, State Specifications. Replace the entire subsection with the following:

Thermoplastic traffic stripes and pavement markings shall conform to the provisions of Subsection 84 of the Caltrans Standard Specifications. Contractor shall paint a solid black stripe between all double thermoplastic striping.

SECTION 212 – LANDSCAPE AND IRRIGATION MATERIALS

212-1 LANDSCAPE MATERIALS. Add the following:

All work specified in this section shall conform to the applicable requirements of ANSI Standard Z60.1-1980, "Nursery Stock," and to the rules and grading provisions adopted by the American Association of Nurserymen, Inc.

Prior to ordering soil amendment and fertilizer materials, the contractor shall obtain a minimum of five samples from different locations and have them tested at an approved analysis laboratory per Section 308-2.3.1.

212-1.1 Topsoil.

212-1.1.1 General. Add the following:

Unless otherwise specified on the plans or required by the Engineer, topsoil shall be Class "C" in accordance with the requirements of 212-1.1.4. Imported soil shall be Class "A" topsoil in accordance with the requirements of 212-1.1.2.

The Contractor shall provide an Agricultural Soil Suitability Report for any topsoil to be furnished, and the requirements for fertilization and amendments as specified herein may be modified as necessary by the CITY prior to start of the work of this section.

212-1.2 Soil Fertilizing and Conditioning Materials

212-1.2.3 Commercial Fertilizer. Add the following:

Pre-plant commercial fertilizer shall be granular 12-12-12 (N-P-K). Post plant fertilizer shall be 14-7-3. Slow release tablets shall be 12-12-12 (N-P-K). These materials are listed for bidding purposes, but may be replaced by the recommendations of the Agricultural Soil Suitability Report.

212-1.2.5 Mulch. Add the following:

Bark mulch shall be shredded cedar, pine, or fir bark or equal commercial product. Typical mulch size shall be three inches by one-half inch (3" x ½"). Submit two (2) samples to the CITY for approval prior to installation. Material shall be free of seeds, debris, and deleterious materials, and shall have a rich brown color when supplied.

212-1.4 Plants.

212-1.4.1 General. Add the following:

All plants furnished by the Contractor shall be true to type or name as shown on the Plans and shall be tagged in accordance with the standard practice recommended by the Agricultural Code of the State of California; however, determination of plant species or variety shall be made by the CITY, whose decision shall be final. No substitutions shall be made without written approval by the CITY.

All plants shall have been grown in nurseries that have been inspected by the appropriate governing authorities. Verification of inspection of plant materials required by City, County, State, or Federal authorities shall be the responsibility of the Contractor; Contractor shall confirm that all nurseries providing plants have necessary permits or certificates prior to delivery of plants to site. Certificates of inspection shall be filed with the CITY upon request.

Contractor shall obtain clearance from the County Agricultural Commissioner as required by law before planting plants delivered from outside the County in which they are to be planted. Evidence of such clearance shall be filed with the CITY upon request.

Plants shall be subject to inspection and approval or rejection by the CITY at place of growth and/or upon delivery to the site at any time before or during progress of the work. Inspections shall include:

- Quantity, quality, size, and variety;
- Ball and root condition;
- Latent defects and injuries resulting from handling, disease and insects; and
- Uniformity of plant materials.

The Contractor shall notify the CITY seventy-two (72) hours before the delivery of plant material, so the plants can be inspected prior to planting.

The Contractor shall research the availability of every plant at the beginning of the project to allow sufficient time to contract grow plant material for installation with delays. Contractor grown plant material shall be grown to the size indicated on the plans and delivered to the site in a healthy and vigorous condition.

212-1.4.2 Trees. Add the following:

Trees shall be of the type and size as shown on the Plans or specified in the Specifications.

Single-trunk trees shall be straight, slightly tapered at crown, free of gnarls or disfigurements and well hardened off. Multi-trunked trees shall have even, balanced canopies, sturdy branching structure and well hardened off. Trees shall be free of disease and parasites.

The Contractor shall notify the CITY seventy-two (72) hours before the delivery of trees, so the trees can be inspected prior to planting.

212-1.5 Headers, Stakes, and Ties

212-1.5.3 Tree Stakes. Replace the first paragraph with the following:

Tree stakes shall be either 2-inch diameter lodge pole pine, treated with copper nanthanate or pressure treated with chromated copper arsenate, or galvanized steel pipe, per 308-4.6.1 (Method A) and City of Torrance Standard Plan No. T401.

Add the following:

Tree ties shall be a commercially manufactured tie, split plastic hose with a minimum length of twenty inches (20"). Split plastic hose ties shall be "Cinch-tie" by V.I.T. or approved equal.

Add the following section:

212-1.6 Moisture Barrier.

212-1.6.1 PVC Liner. Liner to provide barrier between paved and landscape areas shall be polyvinyl chloride, 20 mils thickness, non-permeable plastic sheeting purchased and delivered in rolls, and protected from puncture.

212-2 IRRIGATION SYSTEM MATERIALS

212-2.1 Pipe and Fittings

212-2.1.1 General. Replace the entire subsection with the following:

Irrigation pipe materials and fittings shall be as designated on the Plans and shall comply with 212-2.1.3 of the Standard Specifications. Irrigation supply sleeve containing pressurized main lines under street paving shall be 4" welded steel pipe.

212-2.1.6 Swing Joint Risers. Risers shall be ¾ inch double swing type per APWA Standard Plan N. 517-1 modified to allow substitution of Schedule 80 PVC for galvanized steel pipe and 4" minimum nipples.

212-2.2.2 Valves and Valve Boxes

212-2.2.4 Remote Control Valves. Add the following:

Electric Remote Control Valves shall be as indicated on the Irrigation Plan. A master remote control valve shall be installed for each water meter, downstream of the backflow preventer, manufacturer and model number as indicated on plan.

212-2.2.6 Quick-coupling Valves and Assemblies. Add the following:

Quick couplers shall be Rainbird Model No. 33D-LRC or approved equal.

212-2.2.7 Valve Boxes. Replace the entire subsection with the following:

Valve boxes shall be made of durable plastic with locking lids in accordance with SPPWC Standard Plan No. 506-3. Boxes shall be sized to give maintenance freedom and access. All valve box lid locks shall use a common key.

212-2.3 Backflow Preventer Assembly. Add the following:

Backflow Preventers shall be per the City of Torrance Reduced Pressure Assembly Standard Detail T711-2 with enclosure.

212-3 ELECTRICAL MATERIALS.

212-3.2 Conduit and Conductors.

212-3.2.2 Conductors. Add the following:

Neutral Wires: (White (#12AWG). Do not interconnect neutral wires between controllers

Spare Wires: Two (2) red wires and one (1) white spare wire (#12 AWG) shall be run in each direction from furthest valve of farthest valve manifold on each mainline run to each controller.

Loop 36-inch excess wire into each single valve box and into one valve box in each group of valves.

Pilot Wires: (14 AWG) or larger as recommended by controller manufacturer for the corresponding run distance. Contractor shall field verify run distances prior to installation.

Wireless Connections: Neutral, pilot, and spare wires shall be installed with two-foot (2') excess coiled wire length at each end enclosure, valve box or pull box. For low voltage installations, a continuous wire shall be used between the controller and remote control valves. Each and every wire splice shall be soldered (using 60-40 solder) together, then encased in the waterproofed epoxy of the "Scotch-Pac" or "Pen-Tite" connectors. Wire splices shall be made only in valve or pull boxes. Under no circumstances shall splices exist without prior approval from the Engineer.

Add the following subsections:

212-3.4 Controller Enclosure. The enclosure shall be per the irrigation legend on the irrigation drawings.

212-2.4 Sprinkler Equipment. Add the following:

All full-circle, part-circle or rectangular spray nozzles shall be capable of meeting the requirements for area or radius shown on Plans. If spray pattern requires modification to avoid overspray onto paving, nozzles shall be changed to a different radius or pressure compensating screens shall be added to reduce throws, at no additional cost to the CITY. Use of adjustment screws on sprinkler heads or manual adjustment of remote control valves to permanently adjust throw radius shall NOT be allowed. Pop-up sprinklers shall be per irrigation legend and details on the irrigation drawings.

SECTION 214 – PAVEMENT MARKERS

Delete the entire Section 214 and replace with Section 85 of the Caltrans Standard Specifications (latest edition).

85-1.05 Retroreflective Pavement Markers

85-1.051 Blue Pavement Markers

Blue pavement markers shall conform to Section 3B-11, "Raised Pavement Markers", of the California Manual on Uniform Traffic Control Devices (MUTCD), current edition.

85-1.055 Adhesives. Add the following:

At the option of the Contractor, a hot melt bituminous adhesive may be used to cement the markers to the pavement, instead of the Rapid Set Type or Standard Set Type adhesive specified in Section 85-1.06 of the Caltrans Standard Specifications. The bituminous adhesive material, if used, shall conform to the following:

<u>ASTM Test Specification</u>	<u>Method</u>	<u>Requirement</u>
Flash Point, COC °F	D 92	550 Min.
Softening Point, °F	D 36	200 Min.
Brookfield Viscosity, 400° F	D 2196	3,000-7,500 cP
Penetration, 100g 5 sec., 77° F	D 5	10-20 dmm
Filler Content, % by weight (Insoluble in 1,1,1 Trichloroethane)	D 2371	50-75

SECTION 217 - SIGNAGE

217-1 ROADSIDE SIGNS. All roadside signs shall conform to the provisions of Section 56-2 of the Caltrans Standard Specifications amended as follows:

56-2.02 Materials. Revise the entire subsection with the following:

The various materials and fabrication thereof of roadside signs shall conform to the requirements of 56-2.02 A and 56-2.02 D.

56-2.02A Metal Posts. Delete the first paragraph.

PART 3 - CONSTRUCTION METHODS

SECTION 300 – EARTHWORK

300-1 CLEARING AND GRUBBING.

300-1.3 Removal and Disposal of Materials.

300-1.3.1 General. Replace the entire subsection with the following:

Unless otherwise stated on the Plans or Specifications, all material removed from the Work shall become the property of the Contractor and shall be disposed of in a lawful manner. Removals shall include, but not limited to removal of:

1. All excess excavation material
2. Trees, shrubs, stumps and planting wells
3. Debris
4. Miscellaneous piles of debris
5. Irrigation system including but not limited to Irrigation line, valves, sprinkler heads, hose bibs backflow preventers and control boxes. Irrigation line underneath street pavement shall be cut and capped as shown on the plans and abandoned in place.
6. Interfering portions of curb, gutter, asphalt and PCC concrete pavements and sidewalks (including base where applicable)
7. Signs and posts as shown on the plans
8. Abandoned underground conduits in conflict with construction
9. Miscellaneous items as shown on the plans

The Contractor shall conform to the following requirements:

- 1) The Contractor shall not start any removal work unless it is prepared to perform reconstruction work within 24 hours of the time removals were begun, unless otherwise approved by the Engineer.
- 2) The Contractor shall complete forming and pouring of PCC construction within five (5) working days following the removal of existing material at any location.
- 3) The Contractor shall not remove on-site improvements until it is prepared to construct the adjacent street section and shall promptly restore all such improvements as applicable, upon completion of the adjacent street work.

All concrete removed shall be hauled off the Work site no later than the calendar day following the day that the removal is performed.

The limits for sidewalk, access ramps, curb, curb & gutter and driveways shown on the plans are approximate. Prior to commencing removal operations, the Contractor shall meet with the Engineer to verify the limits of removals and locations of joins to establish smooth joins and to ensure proper drainage. The Contractor may make minor changes in the location of joins and the limits of removals, provided a smooth join and proper drainage can be achieved and prior written approval is obtained from the Engineer.

In order to protect the public streets from deterioration due to hauling of materials, the Contractor shall submit for the Engineer's approval, prior to the Pre-Construction Meeting, a proposed route for hauling of materials for disposal. Upon approval, the Contractor shall strictly adhere to that route, unless written permission from the Engineer is obtained to change the route.

300-1.3.2 Requirements. Add the following sentence to subparagraphs (b) and (c):

- a) **Bituminous Pavement.** Replace the first and second sentences with the following: Bituminous pavement shall be removed to neatly sawed edges, except when only cold mill or grind is to be performed.

Add subparagraphs (d) and (e):

- (d) **Trees.** The City maintains a tree conservation policy. Unless otherwise shown, all trees are to be protected in place. Demolition and destruction of trees and tree parts, including trunks, branches and foliage, shall be limited to tree removals as shown on the Plans or addressed in these special provisions. Root pruning and removals shall be limited to the minimum required to construct new improvements where trees are to be conserved.

The Engineer shall place a visible removable "tag" on each tree proposed to be removed at least five (5) work days and no earlier than ten (10) work days prior to removal. Said "tag" is intended to give adjacent residents proof of trees to be removed or saved. Tags shall be on the sidewalk side of trees and located at least five feet (5') above ground.

The Contractor shall remove only trees that have been marked by the Engineer for removal. Trees shall be removed in a workmanlike manner so as not to injure other standing trees, plants, and improvements which are to be preserved.

Stumps shall be ground down three feet (3') below ground surface within five (5) feet of the center of the stump. All surface roots shall be removed within the parkway.

The Contractor shall conform to the following requirements:

- 1) The cutting down or removal of trees is prohibited after the prescribed working hours unless permission is granted by the Engineer.
- 2) All debris from pruning or removing a tree shall be cleaned up and hauled away from the Work site on the same day that the tree is cut or pruned. Firewood-size logs may be left neatly piled for residents to pick up for no longer than three (3) days.
- 3) All holes created from removal of tree stumps shall be backfilled and graded to finish level by the end of the workday.

- 4) Sprinkler systems disrupted by the Contractor shall be capped or restored by the end of the workday. Capped systems shall be restored to original working condition within three (3) days.

(e) **Miscellaneous Removals and Relocations.** This work shall include all removals not specifically listed in the Proposal or otherwise covered by these Specifications, and all necessary relocations and restorations of walls, fences, plants, hardscape, signs and other items, whether shown on the Plans or not, and as necessary to complete the improvements. Full compensation for miscellaneous removals and relocations shall be included in the Contract Lump Sum Price for CLEARING AND GRUBBING and no additional payment will be allowed.

Add the following section:

300-1.3.3 Construction and Demolition Debris Recycling.

General. Consistent with the Agency's efforts to comply with the California Integrated Waste Management Act of 1989 (AB 939), the Contractor shall reduce, reuse, and/or recycle to the maximum extent feasible, the construction and demolition debris (debris) generated by this Contract hereby diverting the debris from disposal facilities, saving landfill space, and conserving virgin materials and natural resources. Asbestos Asphalt Concrete removed from the site shall not be recycled.

Definitions.

"Construction and Demolition Debris or Debris" means materials resulting from building, construction or demolition-related activities such as excavation, grading, land clearing, renovation, repair, road work and site cleanup and are considered solid waste pursuant to Section 40191 of the California Public Resources Code. The materials include, but are not limited to, asphalt, brick, cardboard, carpet, cinder block, concrete, concrete with reinforcement bars, drywall, excavated materials, fixtures and fittings, glass, gravel, green waste, metal, mixed rubble, packaging materials, paper, plastics, porcelain, road work materials, roofing materials, rock, sand, site clearance materials, soil, trees, tree stumps and other vegetative matter, stones and wood waste.

"Deconstruction" means the process of carefully dismantling a structure, piece by piece prior to or instead of conventional demolition, to maximize the recovery of building materials for reuse and/or recycling.

"Delivery Site" means recycling facility as defined in Subsection E.14 and recycling or reuse site as defined in Subsection E.15 or any place, including a transfer station as defined in Subsection E.20 where the debris is delivered for the sole purpose of reuse and/or recycling in a manner acceptable to the Director/Designee.

"Disposal" means the process of disposing of debris at a Disposal Facility.

"Disposal Facility" means a Landfill or any location where the debris is taken for Transformation as defined.

"Generation" means the quantity of debris produced by the Work before the debris is reused and/or recycled.

"Green Waste" means all vegetative cuttings, shrubs, stumps, logs, brush, tree trimmings, grass, and related materials which have been separated from other solid waste.

"Landfill" means a solid waste disposal facility that accepts solid waste for land disposal and is operating under a current Solid Waste Facility Permit issued by a local enforcement agency as defined in Section 40130 of the California Public Resources Code and concurred upon by the California Integrated Waste Management Board.

"Recyclable" means material that still has useful physical or chemical properties after serving its original purpose and that can be reused or re-manufactured into additional products.

"Recycle or Recycling" means the process of collecting, sorting, cleansing, treating, and reconstituting materials that would otherwise become solid waste and returning them to the economic mainstream in the form of raw materials for new, reused, or reconstituted products which meet the quality standards necessary to be used in the marketplace, and in a manner acceptable to the Agency. "Recycle" or "Recycling" does not include Transformation.

"Recycling Facility" means any facility (except a transformation facility) whose principal function is to receive, store, convert, separate, or transfer recyclable materials for processing.

"Recycling or Reuse Site" means any place other than a recycling facility acceptable to the Agency for recycling and/or reuse of debris.

"Reduce" means any action which causes a net reduction in the generation and/or disposal of solid waste.

"Reuse" means the use, in the form as it was produced, and in a manner acceptable to the Agency of materials which might otherwise be discarded into a Disposal Facility.

"Site Clearance Material" means materials such as trees, brush, earth, mixed concrete, rubble, sand, steel, extraneous paper, plastics, and other waste materials generated from site clearance.

"Source Separation" means the segregation, by the generator, of materials designated for separate collection for materials recovery or special handling.

"Transfer Station" means a facility utilized to receive solid wastes and to temporarily store, separate, convert, or otherwise process the materials in the solid wastes, and/or to transfer the solid wastes directly from smaller to larger vehicles or railroad trains for transport.

"Transformation" means incineration, pyrolysis, distillation, gasification, or biological conversion other than composting.

"Wood Waste" means solid waste consisting of wood pieces or particles which are generated from the manufacturing or production of wood products, harvesting, processing or storage of raw wood materials, or construction or demolition activities.

CONSTRUCTION AND DEMOLITION WASTE MANAGEMENT PLAN.

The Contractor shall prepare and submit a Construction and Demolition Waste Management Plan using the form included as Appendix V summarizing the disposal, reuse, and/or recycling activities which occurred throughout the Contract duration. This report shall be submitted by the Contractor to the Agency, before or with its request for the final Progress Payment for said Contract.

Failure of the Contractor to submit the Construction and Demolition Waste Management Plan within the time specified will result in damages being sustained by the Agency. Such damages are, and will continue to be, impracticable and extremely difficult to determine. For failure to submit the Recycling Summary, as required, the Contractor shall pay to the Agency, or have withheld from monies due it, the sum of \$10,000 for a contract of \$500,000 or more. The Contractor shall pay to the Agency, or have withheld from monies due it, 2% of the total contract amount for a contract of \$499,999 or less.

Execution of the Contract shall constitute agreement by the Agency and Contractor that \$10,000 (2% for contracts \$499,999 or less) is the minimum value of the costs and actual damage caused by the failure of the Contractor to submit the Recycling Summary within the time specified. Such sum is liquidated damages and shall not be construed as a penalty, and may be deducted from payments due the Contractor.

PAYMENT.

The cost of construction and demolition debris recycling and completing the Construction and Demolition Waste Management Plan shall be considered as included in the Contract Unit Price for the various Bid items. The quantities reported will be used for information gathering purposes and not for purposes of payment to the Contractor.

300-1.4 Payment. Replace the entire subsection with the following:

Payment for CLEARING & GRUBBING shall be made at the bid Lump Sum Price and shall include full compensation for clearing and grubbing, removals, disposals or salvage of facilities identified on plans or in these special provisions as well as pavement sawcutting and removal, and for removals and relocations of miscellaneous items that interfere with construction activities.

Payment for removal of PCC Curb and/or PCC Curb and gutter, including sawcutting, removal of underlying subgrade and base, disposal, subgrade preparation and compaction, labor and equipment shall be made per the Contract Unit Price of REMOVE PCC CURB and REMOVE PCC CURB & GUTTER respectively.

Payment for removal of Concrete Sidewalks including sawcutting, removal of underlying subgrade and base, disposal, subgrade preparation and compaction, labor and equipment shall be made per the Contract Unit Price of REMOVE EXISTING SIDEWALK

Payment for removal of concrete curb ramp and concrete driveways including sawcutting, removal of underlying subgrade and base, disposal of subgrad and adjacent integral curbs, subgrade preparation and compaction, labor and equipment shall be made per the Contract Unit Price of REMOVE EXISITING CURB ACCESS RAMP,CURB/GUTTER AND SIDEWALK and REMOVE PCC DRIVEWAY respectively.

Payment for removal of median asphalt paving shall be per the Contract Unit Price of REMOVE MEDIAN ASPHALT PAVING AND BASE

Payment for removal of median concrete paving shall be per the Contract Unit Price of REMOVE MEDIAN CONCRETE PAVING AND BASE

- a) **Painted Curb.** There is no separate payment for removal of paint on concrete curb. Full compensation for furnishing all labor materials, tools, equipment and incidentals as shown on the plans and specified in these Special Provisions shall be included in the contract unit price for traffic striping, markings and pavement markers.

300-2 UNCLASSIFIED EXCAVATION.

300-2.2 Unsuitable Material.

300-2.2.1 General. Replace the first paragraph with the following:

If unsuitable material is found, the Contractor shall remove said material to the limits to be determined by the Engineer and shall replace said material with select fill or base material, as to be determined by the Engineer.

Payment for unsuitable material excavation and backfill shall be measured and paid for in the Contract Unit Price for UNCLASSIFIED EXCAVATION OF UNSUITABLE MATERIALS and shall include sawcutting, removal of underlying subgrade and base, disposal and labor and equipments.

SECTION 301 – TREATED SOIL, SUBGRADE PREPARATION, AND PLACEMENT OF BASE MATERIALS

301-2 UNTREATED BASE.

301-2.1 General. Add the following:

Base is required under all PCC and AC improvements as shown on the Plans. Additional base may be required after review of work areas following removals. Prior to constructing new improvements, the Contractor shall verify with the Engineer that the base sections as shown on the Plans (including areas where no base is called for) are adequate. Payment for any changes shall be made pursuant to Section 3.

- A minimum of 8-inches CMB shall be placed under curb, and curb and gutter, except for curb Type C1-6(150) as noted per these Special Provisions.
- A minimum of 6-inches CMB shall be placed under driveways (includes portion to right-of way/property line), and AC or PCC pavement on private property as part of driveway reconstruction.
- A minimum of 4-inches CMB shall be placed under sidewalks, access ramps, PCC safety ribbon, PCC curb return and PCC strip.

301-2.4. Measurement and Payment. Delete the second paragraph and add the following:

Payment for construction of CMB under curb (except Type C1-6(150)), curb and gutter, driveways, sidewalks and localized subgrade repairs, including preparation of subgrade and compaction of base shall be considered as included in the unit price bid for the item of work and no additional compensation will be allowed therefor.

SECTION 302 – ROADWAY SURFACING

302-5 ASPHALT CONCRETE PAVEMENT

302-5.2 Cold Milling Asphalt Concrete Pavement

302-5.2.1 General. Add the following after the first paragraph:

Cold Milling shall include edge milling, header milling and profile milling as necessary to provide the required grades and allow for a smooth pavement profile in preparation for asphalt concrete overlay paving. Milling limits shown on the plans are approximate. The Engineer may direct the Contractor to cold mill in other areas, as necessary for construction. Some adjustment of limits and depths will be necessary to accommodate paving requirements. Cold milling shall be to the depth as specified or directed, or to the underlying base material, pavement fabric, or macadam material. Milling depth shall be adjusted so as not to remove any macadam encountered. Care shall be exercised not to damage adjacent concrete including curbs without gutters. Gutters or curbs damaged shall be replaced at the Contractor's expense. There are areas within the project that require cold milling that are inaccessible to the type of milling machine as described herein above. Some of these areas include local depressions, curb return, curbs without gutters, utility manholes and vaults. The Contractor shall be required to use a smaller hand machine or other device to cold plane the required horizontal limits and depth at those locations.

Add the following after the third paragraph:

The Contractor shall apply any leveling course at least one day prior to placing AC overlay.

Existing median gutters along Crenshaw Boulevard have been overlaid with asphalt concrete. When cold mill thickness exceeds the existing overlay depth, exposing median gutters, the Contractor shall scuff the gutter pan as needed prior to construction of new AC pavement. A tack coat shall be applied to median gutter per Section 302-5.4 of these Special Provisions.

302-5.2.6 Measurement and Payment. Replace the first paragraph with the following:

Cold milling will be measured by the square foot. Payment for cold milling shall be per the Contract Unit Price per square foot complete up to the depth specified, including disposal of milled material, and shall include construction, removal and disposal of temporary asphalt ramps.

Scuffing of existing median gutters shall be included as incidental to the Contract Unit Price per square foot of COLD MILL EXISTING ASPHALT CONCRETE PAVEMENT OF VARIOUS DEPTHS. The square footage of cold mill includes overlaid pavement at gutter up to median

curb face. There shall be no separate payment for scuffing and tack coat related to median gutters.

302-5.4 Tack Coat. Replace the first sentence of the first paragraph with the following:

If the asphalt concrete pavement is being constructed directly upon an existing hard-surfaced pavement, a tack coat of viscosity grade AR 4000 or AR 8000, or performance grade PG 64-10 paving asphalt conforming to 203-1 applied at an approximate rate of 0.25 L/m² (0.05 gallon per square yard), or SS-1h emulsified asphalt applied at an approximate rate of 0.25 L/m² to 0.45 L/m² (0.05 to 0.10 gallon per square yard), shall be uniformly applied upon the existing pavement preceding the placement of the asphalt concrete.

Add the following paragraph:

A Tack Coat shall be applied between base and finish courses when the finish course is not placed immediately after the base course, and to existing paved surfaces where new asphalt concrete overlaps or abuts existing pavement. Tack Coat shall be as specified in Section 302-5.4. There shall be no separate payment for Tack Coat.

302-5.5 Distribution and Spreading. Delete the fourth paragraph and substitute the following:

Asphalt concrete shall not be placed until the atmospheric temperature is a minimum of 10°C (50°F) and rising, and the surface temperature of the underlying material is a minimum of 4°C (40°F). Asphalt concrete shall also not be placed during unsuitable weather.

Fully automatic screeds will be required on this Project. A fully automatic screed shall have a sled, 9.1m (30 feet) in length, on the side of the machine which will receive the next mat of material. A joint maker, ski, etc., placed on the side of the machine to ride on the existing or previously constructed surface or mat of asphalt concrete material may be required as directed by the Engineer.

Delete Table 302-5.5(A) and substitute the following:

TABLE 302-5.5(A)

Specified Total Thickness of Pavement		Required Number of Courses	Class Of Mixture
Greater Than mm(Inches)	But Not More Than mm(Inches)		
38mm (1-1/2)	75mm (3)	1	Finish Course C2-PG 64-10
75mm (3)	100mm (4)	1	Base Course - B-PG 64-10
100mm (4)	-	2 or more	Base Course - B-PG 64-10 Other Courses - as directed

302-5.8 Manhole (and other structures). Add the following:

Manholes and utility access covers are to be protected in place. If Contractor damages manhole structures or utility covers during construction, Contractor shall replace structures at his own expense. If replacement is needed, Contractor shall remove manholes and utility access covers to below the depth to be removed and restore said covers to finish grade upon completion of paving.

Add the following subsection:

302-5.8.1 Payment. There shall be no separate payment for Manhole (and other structures) adjustments or replacements.

302-5.9 Measurement and Payment

Replace the first paragraph with the following:

Payment for asphalt concrete pavement shall be per the Contract unit price per Ton of ASPHALT CONCRETE (C2-PG64-10) with various depths and ASPHALT CONCRETE (B-PG64-10) with various depths as shown in Plans, Special Provisions and Bid Schedule, and shall include subgrade and base preparation, leveling course, tack coat, and all work necessary to install complete in place. There shall be no separate payment for tack coat, header paving or temporary pavement, and all costs for any said item shall be included in the bid price for the work to which it is appurtenant.

302-5.10 Localized Subgrade Repairs:

302-5.10.1 General. Add the following:

This work shall consist of removing the underlying base, to a depth specified in the bid item, in various locations within the cold mill areas shown on the Plans and install of 4" CMB. Localized Subgrade Repairs' locations and area size will be determined in the field by the Engineer.

Localized Subgrade Repair work shall conform to Sections 300-1, 301, and 302 of these Special Provisions, the Standard Specifications for Public Works Construction (SSPWC), and the project Plans and Details.

302-5.10.2 Measurement and Payment Payment for LOCALIZED SUBGRADE REPAIRS (4" OF UNCLASSIFIED EXCAVATION; INSTALL 4" CMB) shall be per the Contract Unit Price per square foot complete up to the depth specified, including sawcutting, removal and disposal of bituminous pavement, removal of underlying subgrade and base, subgrade and base preparation and compaction, installation of 4" CMB and shall include full compensation for labor, materials, equipments and all work necessary to install complete in place. There shall be no separate payment for steel plates or temporary pavement, and all costs for any said item shall be included in the bid price for the work to which it is appurtenant.

SECTION 303 – CONCRETE AND MASONRY CONSTRUCTION

303-5 CONCRETE CURBS, WALKS, GUTTERS, CROSS GUTTERS, ALLEY INTERSECTIONS, ACCESS RAMPS, AND DRIVEWAYS.

303-5.1 Requirements.

303-5.1.1 General. Replace the first sentence of the first paragraph with the following:

Concrete curbs, gutters, curb and gutters, sidewalks, walks, driveways, shall be constructed of Portland Cement Concrete of the class, compressive strength and other requirements prescribed in Subsection 201-1.

303-5.5. Finishing

303-5.5.2 Curb Add the following:

For concrete curb or curb and gutter construction adjacent to areas where adjacent AC pavement will remain in place, and unless otherwise approved by the Engineer, the entire affected concrete curb except as noted otherwise per these Specifications (Type C1-6 curbs.), or curb and gutter shall be removed by sawcutting the adjacent AC pavement one (1) foot from the edge of the affected area to be removed. Where applicable, the contractor shall reconstruct this one (1) foot wide section with a 2-inch thick section of AC pavement (C2-PG64-10) on a 6-inch thick section of Class 100-E-100 concrete slurry mix on an 8-inch thick section of untreated base. If the affected curb and gutter is located in a spandrel, the spandrel shall be sawcut six inches (6") minimum from the flow line of the gutter and the spandrel reconstructed to match the existing spandrel portion to remain and be on 8 inches of untreated base.

For concrete curb or curb and gutter construction adjacent to areas of pavement reconstruction, the entire affected concrete curb or curb and gutter shall be removed by sawcutting the adjacent AC pavement from a minimum of six (6) inches to a maximum of one (1) foot from the edge of affected areas to be removed. The Contractor shall restore this trench section with 2-inch thick section of temporary AC pavement over select fill on 8-inch Crushed Miscellaneous Base so it is flush with adjacent pavement.

303-5.5.5. Alley Intersections, Access Ramps and Driveways. Add the following:

For concrete curb and gutter construction adjacent to areas where adjacent AC pavement will remain in place and unless otherwise approved by the Engineer, the entire affected curb and gutter portion shall be removed by sawcutting the adjacent AC pavement one (1) foot from the edge of the PCC gutter. Where applicable, the contractor shall reconstruct this one (1) foot wide section with a 2-inch thick section of AC pavement (C2-PG64-10) on a 6-inch thick section of Class 100-E-100 concrete slurry mix on an 8-inch thick section of untreated base. If the affected curb and gutter is located in a spandrel, the spandrel shall be sawcut six inches (6") minimum from the flow line of the gutter and the spandrel reconstructed to match the existing spandrel portion to remain and be on 8 inches of untreated Base. No extra payment will be allowed for the PCC spandrel construction. For concrete curb or curb and gutter construction adjacent to areas of pavement reconstruction, the entire affected concrete curb or curb and gutter shall be removed by sawcutting the adjacent AC pavement from a minimum of six (6) inches to a maximum of one (1) foot from the edge of affected areas to be removed. The Contractor shall restore this section with 2-inch thick section of temporary AC pavement over select fill on 8-inch Crushed Miscellaneous Base so it is flush with adjacent pavement.

PCC Access Ramps shall be constructed at locations shown on the Plans and per SPPWC Standard Plan No. 111-4, included in Appendices, as directed by the Engineer. All ramps are to be located in the midpoint of curb return unless otherwise approved by the Engineer. The Contractor shall be responsible to establish elevations and grades as required to conform to all legal requirements.

Access ramps constructed in existing curb returns may obliterate survey tie points. The Contractor shall give a minimum of three (3) work days advance notice of each location to the Engineer prior to removals so the Engineer may address and/or direct re-establishment of the existing survey tie points.

Detectable Warning Surface. Access ramps shall have a single piece prefabricated detectable warning surface with dimensions of 36-inches (perpendicular to curb) by 48-inches wide (along curb) installed in accordance with the SPPWC Standard Plan No. 111-4 and comply with the requirements of the Americans with Disabilities Act (ADA). Detectable warnings shall consist of raised truncated domes with a base diameter of nominal 0.9 inches, a top diameter of nominal 0.45 inches, a height of nominal 0.20 inches and a center-to-center spacing of nominal 2.35 inches. The edge of the detectable warning surface nearest the street shall be between 6" and 8" from the gutter flowline.

The detectable warning surface shall be a Cast-In-Place Replaceable Tactile Warning Surface Tile. The color of the detectable warning surface shall be Dark Gray (Federal Color No. 36118) or as approved by the Engineer prior to installation. The detectable warning system is to be manufactured with materials that are fully recyclable. The detectable warning surface shall be installed in accordance with the manufacturer's recommendations and instructions. The manufacturer shall provide a 5-year warranty, guaranteeing replacement when there is a defect in the dome shape, color fastness, sound-on-cane acoustic quality, resilience or attachment. The warranty period shall begin on the date of acceptance of the Contract.

Driveways shall have a concrete thickness of 4 inches for single-family residences and 6 inches for all other areas.

303-5.7 Repairs and Replacements. Add the following:

The Contractor shall be responsible for protection of all new concrete work from being etched, scratched or otherwise marked following replacement thereof. If new concrete work is marked, the Contractor shall replace it at its expense and no extra costs will be allowed.

303-5.9 Measurement and Payment. Replace the entire subsection with the following:

Payment for concrete curb and curb and gutter (excluding integral curb and curb/gutter associated with driveways, curb ramp and PCC Curb Type C1-6(150)) and transition shall include all the labor, work and materials necessary to construct joints and keyways, root pruning base, formwork, concrete material, curing, protection, testing, reconstruction of adjacent one (1) foot wide pavement, protection of adjacent AC pavement to remain in place, protection of existing trees, parkway restoration, repainting of addresses on curb faces where painted addresses have been removed due to new curb construction and repainting of red curb (top and face) where red curb has been removed due to new curb construction and shall be per the Contract Unit Price per linear foot of CONSTRUCT PCC CURB OR GURB & GUTTER PER SPPWC STD PLAN 120-2 [TYPE:A1-6(150); A1-8(200); A2-6(150) OR A2-8(200)] OVER

8"CMB' INCLUDING RESTORATION OF 1-FOOT WIDE SLOT PATCH. MATCH EXISTING CUBR HEIGHT AND GUTTER WIDTH.

Payment for curb and curb gutter transitions to match existing and mountable curbs at connection points and maintenance vehicle pullouts will be measured and paid for as the standard curb or curb and gutter adjacent to the transitions.

PCC Curb Type C1-6(150) shall be doweled into existing pavement per SPPWC STD Plan 120-2 [Type C1-6(150)]. Payment shall include concrete materials, formwork, curing, protection, testing and all labor, work and materials to construct the work complete in place and shall be per the Contract Unit Price per linear foot of CONSTRUCT MODIFIED CONCRETE CURB (C1-6) PER SPPWC STD PLAN 120-2.

Payment for concrete walks, sidewalks shall include all joints as shown in standard plans and construction details and shall include all labor, work and materials, root pruning, formwork, concrete material, curing, protection, testing, adjustments to match existing improvements, backfill, protection of existing trees, parkway restoration, base and all other work necessary to construct the work complete in place and shall be per the Contract Unit Price per square foot of CONSTRUCT 3.5" THICK PCC SIDEWALK OVER 4" CMB, OUTSIDE LIMITS OF CURB ACCESS RAMP.

Payment for driveways and integral curbs along driveways shall include all joints as shown in standard plans and construction details, reconstruction of adjacent 1' wide AC pavement and shall be per the Contract Unit Price per square foot of CONSTRUCT 6" THICK PCC DRIVEWAY ON 8" CMB PER CITY OF TORRANCE STD PLAN T108.

Payment for access ramps with detectable warning surfaces shall be per the Contract Unit Price of CONSTRUCT NEW CORNER PCC CURB OR CURB AND GUTTER PER SPPWC STD 120-2 [TYPE: A1-150(6); A1-200(8); A2-150(6) OR A2-200(8)] OVER 8' CMB AND 3.5" THICK CURB ACCESS RAMP CASE "A" PER SPPWC 111-4 WITH 36"X48" DETECTABLE WARNING SURFACE PANEL, ON 4" CMB INCLUDING RESTORATION OF 1-FOOT WIDE SLOT PATCH. CURB RAMP IS NOT MONOLITHIC WITH CURB OR CURB AND GUTTER and shall include installation of Crushed Miscellaneous Base, formwork, concrete material, curing, protection, testing, traffic control, adjustments to match existing improvements, furnishing and installing detectable warning surface in accordance with manufacturer's instructions/installation procedure, and all labor, work and material necessary to construct the work complete in place. New sidewalk shall match existing sidewalk finish and pattern as directed. Integral retaining curb, if needed, shall be constructed at back of curb ramps as necessary to match existing landscape grades. Retaining curbs shall be included in this bid item.

Add the following:

303-5.10 Hardscape

Hardscape shall consist of 3.5-inch thick PCC Safety Ribbon, PCC Strip, PCC Curb Return over 4-inch CMB, and interlocking concrete paving stones set in a sand laying course on 4" base on 90% compacted subgrade. Interlocking concrete paving stones materials shall be as follows:

Base shall be Crushed Miscellaneous Base (CMB) per these Special Provisions.

Sand Laying Course shall be clean washed sand with 100% passing a No. 4 sieve size and a maximum of 3% passing a No. 200 sieve size, commonly known as plaster sand. Provisions and quality of sand shall be the responsibility of the paving stone installer.

Interlocking Concrete Paving Stones shall be manufacturer, colors, shapes, and patterns as called out on the Plans unless a substitute has been approved by the City at least 14 days prior to delivery to the site. Paving stones shall be manufactured in a single run to insure uniformity of color.

Pavers shall have a minimum of compressive strength of 8,000 PSI in accordance with testing procedures ASTM C-140.

Materials used to manufacture pavers shall conform to the following:

Cement: ASTM C-150 (Portland Cement)

Aggregates: ASTM C-33 (washed, graded sand rock, no expanded shale or lightweight aggregates).

Paving stones shall be delivered and unloaded at the job site on pallets and bound in such a manner that no damage occurs to the product during hauling, handling, or unloading at the job site. Any pavers that are broken, chipped or otherwise damaged during delivery, storage, or installation shall be replaced at no cost to the City.

Contractor shall submit six (6) paving stones to the City within the color range selected from manufacturer's available colors as representatives of the colors supplied for the job. Samples must be approved by the City prior to delivery of the materials to the site. There shall be no payment for said samples.

Installation

Installation shall meet all guidelines and requirements set forth in the National Concrete Masonry Association Publication, "Concrete Block Pavements," TR94A, 1983. Contractor installing interlocking paving shall have a minimum of five years of experience installing such paving, and shall provide a list of completed installations at the City's request.

Construction and installation of interlocking pavers shall be of the highest craftsmanship and in accordance with the manufacturer's recommendations and details on the drawings. All construction shall be accurately fitted, set plumb and level, and free from surface blemishes, according to the lines, dimensions, patterns, and details as shown and called out on the plans. Contractor shall carefully review and follow the manufacturer's specifications throughout the installation process.

:

The Sand Laying Course shall be uniform to insure an even surface, at a thickness of one inch, plus or minus 1/16". It shall be Compacted and moistened at an even rate per manufacturer's specifications, and screed to grade. Engineer will inspect and approve laying course prior to installation of pavers.

Interlocking Concrete Paving Stones shall be clean and free of foreign materials. Installation of pavers shall be hand tight and level, starting from a corner or straight concrete

curb edge and proceeding forward over the undisturbed sand laying course. String lines shall be used to hold pattern lines true.

Paving stones shall be cut to fit designated area at edges as necessary, using a masonry saw. Cuts shall be straight across the full thickness of the pavers, with cut sides abutting adjacent concrete evenly and with a tight fit, with a maximum 1/8" tolerance. All edges of perimeter stones and sand leveling course.

A Roller Vibrator or Plate Vibrator shall be used to compact the stones and to vibrate the sand up into the joints between the stones.

Plaster sand shall be spread over the installed paving stones and vibrated in between the stones joints. Excess sand shall be swept into the joints or disposed of from the surface area.

Finished paving shall be plumb, level and true to line and grade, and shall properly coincide and align with adjacent work and elevations. City shall inspect and approve all portions before final cleanup and placement of street furnishing.

Contractor shall warranty the placement and finish grade level of paving stone installations for a period of one year after completion, and shall replace any unlevel portions of paving upon request by the City.

Continuous one (1) foot wide, 3.5-inch thick over 4" CMB PCC Safety Ribbon/PCC Strip shall be constructed adjacent to landscape areas as shown on the plans. PCC Safety Ribbon/PCC Strip shall have a natural color and smooth trowel finish, with score pattern at four (4) foot intervals and shall be poured over 95% compacted subgrade. Contractor shall construct a semi-circular 3.75 foot radius. 3.5-inch thick over 4-inch CMB at curb returns as shown on plans. PCC Curb Returns shall have a natural color and smooth trowel finish and shall be poured over 95% compacted subgrade.

Cleanup

Excess sand shall be swept into the joints or disposed of from the surface area. Upon completion of paving stone installation, surface shall be washed with water and cleaned to provide a clean finished workmanlike installation. Acid wash can be used, if necessary, to remove any stains or spilled cement.

305-5.10.1 Payment

Payment for interlocking concrete paving stones include all labor, material, subgrade preparation, compaction, placement of sand laying course, cutting, placement, addition of sand, vibrating of paving stones, clean up and all other work necessary to construct complete in place as shown on plans, and shall be per the Contract Unit Price per square foot of PRECAST CONCRETE PAVERS INCLUDING SANDBASE and no additional costs shall be allowed.

Payment for PCC Safety Ribbon/Strip/Curb Return shall be per Contract Unit Price per square foot of CONSTRUCT 3.5" THICK PCC SAFETY RIBBON/STRIP/CURB RETURN OVER 4" CMB and shall include all work needed.

SECTION 307 – STREET LIGHTING AND TRAFFIC SIGNALS (REPLACED WITH SECTION 86 OF CALTRANS STANDARD SPECIFICATIONS)

Delete the entire Section 307, and replace with Section 86 of the Caltrans Standard Specifications.

86-1 GENERAL

86-1.01 Description. Replace the entire subsection with the following:

The Work shall consist of furnishing and installing, modifying or removing sign illumination systems, communication systems, electrical equipment in structures, provisions for future systems, or combinations thereof, all as shown on the Plans, and as specified in these Special Provisions. Plan No. TS 92-252 in appendices is for reference only, Contractor shall verify field conditions prior to performing the work.

The locations of signals, standards, lighting fixtures, signs, controls, services and appurtenances shown on the Plans are approximate.

Comply with Part 4 of the California MUTCD. Nothing in this Section 86 is to be construed as to reduce the minimum standards in this manual.

The locations of electrical system elements are approximate; the Engineer will approve final location.

86-1.02 Regulations And Code. Delete the second paragraph.

86-1.03 Cost Break-Down. Delete the entire subsection.

86-1.04 Equipment List and Drawings. Replace the entire subsection with the following:

Unless otherwise permitted in writing by the Engineer, the Contractor shall within 15 days following approval of the contract, submit to the Engineer for review a list of equipment and materials which the Contractor proposes to install. The list shall be complete as to name of manufacturer, size and identifying number of each item. The list shall be supplemented by such other data as may be required, including schematic wiring diagrams and scale drawings of cabinets showing location and spacing of shelves, terminal blocks and equipment, including dimensioning. The above data shall be submitted, in duplicate, for review.

The Contractor shall furnish 3 sets of controller cabinet schematic wiring diagrams made by (1) wet blueprint, white background process using iron-sensitized paper, (2) the offset lithograph process or (3) the electrostatic process. The diagrams shall show the location of the installation and shall list the equipment installed in each controller cabinet. In addition, for each signal installation, the Contractor shall furnish an intersection sketch showing poles, detectors, field wire connection terminals and phasing as shown on the plans. One copy of the controller cabinet diagram and the intersection and phase diagram, as reviewed by the Engineer, shall be placed in a heavy duty plastic envelope and attached to the inside of the door of each controller cabinet.

All schematic wiring diagrams of the controller units and auxiliary equipment, all cabinet diagrams and all operation manuals shall be submitted at the time the controller assemblies are delivered for testing. The diagrams shall show in detail all circuits and parts. All parts shown thereon shall be identified by name or number and in such manner as to be readily interpreted.

All diagrams, plans and drawings shall be prepared using graphic symbols shown in ANSI publication Y32.2, entitled "IEEE Standard and American National Standard Graphic Symbols for Electrical and Electronic Diagrams."

All systems shall be complete and in operating condition at the time of acceptance of the Contract.

Add the following subsection:

86-1.055 Warranties, Guaranties and Instruction Sheets.

Guaranty for all Work, materials and labor shall be valid for a period of one year from the date of acceptance of the Work.

Full compensation for furnishing the guaranty will be considered as included in the Contract unit price for the items of work involved and no additional compensation will be allowed therefor.

86-1.06 Maintaining Existing and Temporary Electrical Systems. Add the following:

Unless otherwise authorized by the Engineer, all existing traffic signals shall remain in operation at all times. Maintenance of the existing traffic signals, street lighting, signs or approved temporary replacements shall be the responsibility of the Contractor. The Contractor shall provide twenty-four (24) hour telephone number(s) at which its appropriate personnel can be contacted by the City for any problem with the above-referenced items. Unless permission has been granted by the Engineer, a traffic signal must not remain in a flashing mode for more than two (2) hours. Existing traffic signal system shall remain in operation during construction and until the new system is in operation.

Replace the first paragraph with the following:

All work to be done in connection with the modification of an existing traffic signal shall be performed in such a manner that the signal shall be in continuous operation, except for an approved duration when traffic signal may be inactivated off for necessary work. All signal indications, detectors and control equipment shall be maintained in operation except during shutdown hours, as specified by the Engineer. For permission by and coordination with the City to shutdown a traffic signal, the Contractor shall notify the Engineer at least 48 hours prior to shutdown. The placement of any temporary devices and/or wiring necessary to maintain traffic signal operations shall provide a minimum of 18 feet vertical clearance for vehicles and a minimum of 10 feet over pedestrian areas. All safety regulations and precautions shall be observed in the installation work.

Full compensation for furnishing, installing, maintaining and removing temporary "STOP AHEAD" and "STOP" signs and for covering signs not in use shall be considered as included in the contract lump sum price paid for the signal item involved and no additional compensation will be allowed therefor.

Replace the third paragraph with the following:

The cost for maintaining existing and temporary electrical systems shall be included in the Contract unit price for each traffic signal.

Delete the fourth and fifth paragraphs.

Replace the sixth paragraph with the following:

If the Contractor fails to complete the repairs within this period, the repairs will be made by City forces at the Contractor's expense.

86-2 MATERIALS AND INSTALLATION

86-2.05 CONDUIT

86-2.05A Material. Replace the first sentence with the following:

Conduit and fittings shall, per City of Torrance Requirements, be the rigid metal type manufactured of mild steel and conforming to UL Publication 6 for Rigid Metal Conduit (Types 1 and 2), or the intermediate metal type manufactured of mild steel conforming to UL Publication 1242 for Intermediate Metallic Conduit (Type 5).

Non metallic conduit shall not be used, except as required by Southern California Edison Company.

Conduit shall be installed under existing pavement sections to remain by Jacking or Drilling methods. At the discretion of the Engineer, conduit runs shown on the Plans to be located behind curbs may be installed in the street, within 3 feet of and parallel to the curb, by trenching as provided below. All pull boxes shall be located behind the curb or at the locations shown on the Plans.

For traffic signal conduits, the City will allow the use of Schedule 80 PVC material for new conduit to be installed under AC pavement and extending into the nearest pull box. However, any new conduit that will be installed within and through the concrete foundation of the traffic signal controller or electrical service pedestal, shall not be the Schedule 80 PVC material.

86-2.05B Use. Delete the third paragraph.

86-2.05C Installation. Add the following:

Conduit shall be installed in conformance with the codes and regulations listed in Caltrans Section 86-1.02, "Regulations and Codes" and these Special Provisions.

Replace the first sentence of the first subparagraph of the seventeenth paragraph with the following:

Conduit, per City of Torrance Requirements shall either be Type 1, 2 or 5.

Type 3 conduit shall be used where required by Southern California Edison Company.

Replace the fourth subparagraph of the seventeenth paragraph with the following:

The conduit shall be placed in the bottom of the trench and the trench shall be backfilled with commercial quality class 100-E-100 concrete slurry to two inches (2") below either existing pavement thickness to remain or below proposed pavement thickness if applicable and possible. Permanent resurfacing shall match plan plus one inch (1") unless otherwise approved by the Engineer.

Replace the sixth subparagraph of the seventeenth paragraph with the following:

All excavated areas in the pavement shall be backfilled to existing grade or plated at the end of each work period.

Replace the twentieth paragraph with the following:

Conduits terminating in standards or pedestals shall extend not more than 2 inches vertically above the foundation and shall be sloped towards the handhole opening. Conduit entering through the bottom of a pull box shall terminate 2 inches above the bottom and shall be located near the end walls to leave the major portion of the box clear. At all outlets, conduits shall enter from the direction of the run.

Add the following:

After conductors have been installed, the ends of conduits terminating in pull boxes and controller cabinets shall be sealed with an approved type of sealing compound.

86-2.06 PULL BOXES

86-2.06A Materials. Replace the entire subsection with the following:

Pull boxes, covers and extensions for installation in the ground, sidewalk or median areas shall be of the sizes and details shown on the Plans and shall be of precast of reinforced Portland Cement Concrete (PCC). Plastic pull boxes shall not be used.

Covers shall be secured with 3/8 inch bolts, cap screws, or studs, and nuts which shall be of brass, stainless steel or other non-corroding material. Stainless steel hold-down bolts, cap screws or studs, and nuts and washers shall have a chromium content of not less than 18 percent and a nickel content of not less than 8 percent.

All ferrous metal parts shall be galvanized in conformance with the provisions in Section 75-1.05 of Caltrans Standard Specifications.

86-2.06C Installation and Use. Replace the entire subsection with the following:

Pull boxes shall be installed at the locations shown on the Plans. The bottoms of pull boxes installed in ground, sidewalk or median areas shall be bedded in crushed rock. Grout in bottom of pull boxes will not be required. Where the sump of an existing pull box is disturbed by the Contractor's operations, the sump shall be reconstructed to the satisfaction of the Engineer.

86-2.08 CONDUCTORS AND CABLES. Add the following:

Conductor Cable shall be used where noted on the Project Plans. A 3 type cable shall be used between the No. 6 pull box in each corner and each signal pole for each pedestrian push button and pedestrian indication. A 5 type cable shall be used between the No. 6 pull box in each corner to each pole for each vehicle head.

Existing interconnect cable shall be re-pull into new conduit as shown on the plans.

New interconnect cable shall be 12 pair No. 19. All cable provided shall be certified by the manufacturer as meeting the requirements of the REA Specifications for Type PE-39 cable as related to the materials and construction methods used, and the electrical and mechanical characteristics of the actual cable supplied by the Contractor.

All conductors shall be THW. The Contractor shall provide all new conductors unless otherwise shown on the Plans or provided for in these Special Provisions.

86-2.09 WIRING

86-2.09C Connectors and Terminals. Add the following:

Conductors #10 AWG or larger shall be spliced by the use of approved "C" shaped compression connectors.

86-2.09D Splicing and Terminations. Add the following:

No splicing shall be permitted except for signal and lighting commons. All conductors shall extend from the cabinet to the terminal compartment in each pole.

Conductors #10 AWG or larger shall be spliced by the use of approved "C" shaped compression connectors.

86-2.09E Splice Insulation. Replace the last paragraph with the following:

The Contractor shall use splice insulation "Method B".

86-3 CONTROLLER ASSEMBLIES

86-3.04C Cabinet Wiring. Add the following:

A listing of field conductor terminations, in each controller cabinet, will be furnished free of charge to the Contractor at the site of the work.

86-4 TRAFFIC SIGNAL FACES AND FITTINGS

86-4.06 Pedestrian Signal Faces. Add the following subsections:

86-4.06A Types.

Pedestrian signal faces shall be Type A with L.E.D. indications unless otherwise specified by the Engineer.

86-4.06B Front Screen.

Front screen installation for each Type A signal must comply with the following:

Install a 1-1/2-inch deep eggcrate or Z crate type screen of 1/32-inch nominal thickness polycarbonate. Mount screening in a frame constructed of 0.040-inch minimum thickness aluminum alloy or polycarbonate. Install screen parallel to face of message plate and hold in place with stainless steel screws. Visor as specified in Section 86-4.06D, "Visors," is not required.

86-5 DETECTORS

86-5.01 Vehicle Detectors

86-5.01A Inductive Loop Detectors.

86-5.01A(3) Construction Materials. Replace the first paragraph with the following:

Conductor for each inductive loop detector shall be continuous and unspliced and shall conform to the following:

Type 1 loop wire shall be Type RHW-USE neoprene-jacketed or Type USE cross-linked polyethylene insulated, No. 12, stranded copper wire. The minimum insulation thickness at any point shall be 40 mils.

86-5.01A (4) Installation Details. Add the following:

The Contractor shall test the detectors with a motor-driven cycle, as defined in the California Vehicle Code that is licensed for street use by the Department of Motor Vehicles of the State of California.

Asphaltic emulsion sealant shall be used in all sawcuts.

The unladen weight of the vehicle shall not exceed 220 pounds and the engine displacement shall not exceed 100 cubic centimeters. Special features, components or vehicles designed to activate the detector will not be permitted. The Contractor shall provide an operator who shall drive the motor-driven cycle through the response or detection area of the detector at no less than three miles per hour and no more than seven miles per hours. The detector shall provide an indication in response to this test.

Add the following subsection:

86-5.01B (1) Video Detection System

Video detection system shall be furnished and installed in the cabinet at the location shown on the Plan. The video system equipment, cabling and auxiliary equipment shall be as shown below or equal, and as specified in the Appendices of this Specification and as noted on the Plans. The Engineer reserves the right to select equipment from any manufacturer for the video detection system. As such, the Engineer may ask the Contractor to provide and alternate material submittal and related cost proposal for said other equipment.

Iteris

Part Number	Description
CAM-RZ4AWDR	Iteris Vantage Edge 2 Camera
CAMBRKT4	Iteris Universal Mounting Bracket
EDGE2 IOM32 or TS2-1M	Iteris TS-1 or TS-2 Interface Module
	10" Flat Panel Monitor
LAMVIEW ADPT	Iteris Lens Adjustment Module
EDGE2-4N	Iteris Vantage Edge 2 Processor- QUAD
	Turn On Support and Training
	Belden Precision Video Cable RG-59/U Type 20 AWG
Catalog # 01342	General Cable Carolprene Jacketed Type SJOW cord
	Iteris Vantage Input/Output & extension Modules

Considered equal is the Econolite Autoscope ENCORE camera with Autoscope ENCORE branch Cable (3-conductor/18AWG) and other compatible, required auxillary equipment from Econolite to provide a fully-operational video detection system.

One video detection camera shall be installed on each luminaire mast arm for each direction as shown on the Project Plans and details contained in 86-5.01B(2) herein.

The Contractor shall have a manufacturer's representative present during installation of all cameras and cabinet modifications. The manufacturer's representative shall provide a minimum of 16 hours (2 days) of training with CITY staff.

86-5.01B (2) Detailed Specification for Video Detection System

86-5.01B (2.1) Video Detection System

See Appendix VI

86-5.01B (2.2.3) Video Server

The contractor shall provide one compatible Video Server to be located at the intersection. The video server shall have four ports for analog video and both Ethernet and RS-232 ports capable of transmitting high-quality de-interlaced video at 30 frames per second (NTSC) per channel.

86-6 LIGHTING

86-6.09 Internally Illuminated Street Name Signs. Add the following:

Each Internally Illuminated Street Name Sign shall have a photoelectric control. Each Internally Illuminated Street Name Sign shall be furnished to the City with the capability and hardware to be illuminated with both fluorescent and LED type illumination.

The Contractor shall furnish and install new mounting hardware for any new and relocated IISNS sign. The IISNS sign format is shown on the Plans.

86-7 REMOVING, REINSTALLING OR SALVAGING ELECTRICAL EQUIPMENT

86-7.01 Removing Electrical Equipment. Replace the first paragraph with the following:

Existing electrical equipment shown on the Plans or specified in these Special Provisions to be removed and not reused or salvaged, and pull boxes, conduit and detector frames not reused, shall become the property of the Contractor, except the controller cabinet which shall be salvaged to the CITY and delivered to the CITY Yard as directed by the Engineer.

86-8 PAYMENT

86-8.01 Payment. Replace the entire subsection with the following sections:

86-8.02 Payment

Payment for removal of existing and installation of new Internally Illuminated Street Name Signs will be made at the Contract Unit Price of REMOVE EXISTING ILLUMINATED SIGN. FURNISH AND INSTALL NEW INTERNALLY ILLUMINATED STREET NAME SIGN ON TRAFFIC SIGNAL MAST ARMS AT 190TH INTERSECTION and shall include all work needed.

Payment for removal of existing Pedestrian Indication, wiring modifications and installation of new countdown indication will be made at the Contract Unit Price of REMOVE EXISTING PEDESTRIAN INDICATION. FURNISH AND INSTALL NEW COUNTDOWN PEDESTRIAN INDICATION and shall include all work needed.

Payment for removal of existing detector loops, wiring modifications for said loops will be made at Contract unit Price of TRAFFIC LOOP DETECTORS and shall include full compensation for all labor, materials, tools, equipment, and incidentals, for doing all the work involved in furnishing and installing traffic loop detectors.

Payment for installation of video detection system, including manufacturer's oversight will be made at the Contract Lump Sum Price of FURNISH AND INSTALL NEW VIDEO DETECTION SYSTEMS, COMPLETE IN PLACE, INCLUDING ALL WIRING AND DISCONNECTION OF EXISTING PRIMARY DETECTORS LOOPS AT 182ND INTERSECTION and shall include all work needed.

Payment for removal of existing traffic signal pull box and installation of new traffic signal pull box will be at Contract Unit Price for FURNISH AND INSTALL TRAFFIC SIGNAL PULL BOX PER CALTRANS STANDARD PLAN ES-8A and shall include full compensation for all labor, materials, tools, equipment and incidentals, for doing all the work involved in furnishing and installing traffic signal pull box and no additional payment shall be made.

SECTION 308 – LANDSCAPE AND IRRIGATION INSTALLATION

308-2 EARTHWORK AND TOPSOIL PLACEMENT

308-2.1 General. Add the following:

The landscape work shall not begin until all other trades have repaired all areas of settlement, erosion, rutting, etc., and the soils have been re-established, recompact and refinished to final grades. The Engineer shall be notified of all areas where the landscape work is prevented from being executed.

Finish soil level shall be two inches below tops of curbs and rock paving areas; if existing amended soil is inadequate to meet this grade. Contractor shall provide import topsoil as necessary, and shall mix import with native soil to prevent layering and facilitate permeability.

Surface drainage shall be provided by modeling the surfaces to facilitate the natural run-off of water forward the center of median islands to prevent flow onto adjacent street. Low spots and pockets shall be filled with topsoil and graded smooth to drain properly.

308-2.2 Trench Excavation and Backfill. Subparagraph 2) is amended as follows:

- 2) Waterlines continuously pressurized – 36 inches (42 inches under roadways).

Subparagraph 3) is amended as follows:

Lateral sprinkler lines – 12 inches (30 inches under roadways)

308-2.3 Topsoil Preparation and Conditioning.

308-2.3.1 General. Add the following:

Before soil preparation operations are started in any area, the Contractor shall remove and dispose of all trash, existing landscape plants (including trees) and any other debris on the surface of the ground.

The Contractor shall perform weed eradication on any exposed non-paved areas of medians. The Contractor shall irrigate the entire project site six (6) times over fourteen (14) days to germinate existing weed seeds. Allow weed seeds to grow until they reach a maximum height to two to three inches. A post-emergent herbicide spray material shall then be applied per the manufacturer's specifications and instructions. The sequence of operations shall be approved by the CITY prior to beginning spraying operations. Before applying any chemical spray material, the Contractor shall obtain the CITY written approval of the material to be used, the rate, and method of application.

Any weed growth which subsequently appears shall be killed by additional spraying before the weeds exceed two (2) inches in height. At the time of planting, each area to be planted shall be free of living weeds of any height.

The Contractor immediately shall remove and dispose of mowed weed growth and all other debris generated by clearing and grubbing when so directed by the CITY.

308-2.3.2 Fertilizing and Conditioning Procedures. Add the following:

For bidding purposes, the conditioning material per 1,000 square feet shall be:

- a) Four (4) cubic yards nitrogen stabilized organic amendment derived from redwood, fir or cedar sawdust.
- b) Fifteen (15) lbs. 12-12-12 commercial fertilizer.
- c) Fifteen (15) lbs. soil sulfur.

The Contractor shall apply post-plant fertilizer at the rate of fifteen pounds (15 lbs.) per 1,000 sq. ft., thirty (30) days after planting and once again at the end of the post-construction maintenance period.

Prior to ordering soil amendment and fertilizer materials, the Contractor shall, at his/her own expense, obtain a minimum of five (5) samples of native site soil from different locations and have them tested at an approved soil analysis laboratory. Analysis shall include recommendations for soil amendment, backfill mix, and maintenance fertilization, and shall be submitted to the CITY for review and approval. At the CITY's direction, Contractor shall follow recommendations of Agricultural Soil Suitability Report at no additional cost to the CITY unless there are significant differences in quantity and nature of amendments between bid documents and Agricultural Soil Suitability Report.

308-2.4 Finish Grading.

The finish grade below adjacent paving, curbs in median/island or headers shall be two inches in all landscape areas.

308-3 Header Installation

Header shall be a 2"X4" Redwood Headers with 2"X2'X12" Redwood Stakes installed as shown on plans.

Full compensation for the materials and installation of headers shall be in conformance with Section 308-3 of the standard specifications and shall be per the Contract Unit Price per lineal foot of REDWOOD HEADERS FOR TREE WELLS.

308-4 PLANTING

308-4.1. General. Add the following:

Planting work shall not begin until the area's irrigation system has been installed, is operational again and passed inspection

Inspection and approval of specimen plants shall be required before delivery to site; all other plants on delivery. Any plants rendered unsuitable for planting because of this inspection shall be considered as samples and shall not be paid for. In case the sample plants inspected are found to be defective, the CITY reserves the right to reject the entire lot or lots of plants

represented by the defective samples. Rejected plants shall be removed from the site immediately. Random samples will be inspected for root condition.

All plants shall be true to name and one of each bundle or lot shall be tagged with the name and size of plants, in accordance with the standards of practice recommended by the American Association of Nurserymen. The root condition of plants furnished in containers shall be determined by removal of earth from the roots of not less than two (2) plants, not more than 2 percent (2%) of the total number of plants of each species or variety, except when container-grown plants are from several different sources; in which case, the roots of not less than two (2) plants of each species or variety from each source shall be inspected by the CITY. The selection of plants to be inspected will be made by the CITY.

All plants of the same species and container size (i.e., the same specification) shall be uniform in size and shape and at the same stage of growth to the satisfaction of the CITY.

All plants shall be fully acclimated and in an active growing state.

The Contractor shall remove all lateral growth that is not acceptable and/or shape all plants to the satisfaction of the CITY.

All plants shall be full-sized and shall have root systems at a fully developed state within the container.

Hair roots should extend to the edge of the container. No plant shall be rootbound. Root balls may require scarification to the satisfaction of the CITY.

No boxed, balled or canned plants shall be planted if the ball is broken or cracked, whether before or during the process of planting. Any plant transplanted by the Contractor that dies or has bark, branch or die-back injury shall be replaced at the Contractor's expense with an equal plant to the satisfaction of the CITY.

Before plants are transported to the planting area, they shall be properly pruned or cut back to reduce damage by wind and to force lateral growth. The Contractor shall remove all lateral growth that is not acceptable and/or shape all plants to the satisfaction of the CITY.

No plants shall be transported to the planting area that are not thoroughly wet throughout the ball of earth surrounding the roots. Plants should not be allowed to dry out, nor shall any roots be exposed to the air except during the act of placement. Any plant that, in the opinion of the CITY, is dry or in a wilted condition when delivered or thereafter, whether in place or not, will not be accepted and shall be replaced at the Contractor's expense.

All inspections herein specified shall be made by the CITY. The Contractor shall request inspection at least 48 hours in advance of the time inspection is required. Inspection shall be required on the following stages of the work:

- a. During preliminary grading, soil preparation, and initial weeding.
- b. When plants are spotted for planting, but before planting holes have been excavated.
- c. When finish grading has been completed.

- d. When all specified work, except the maintenance period has been completed.
- e. Final inspection at the completion of the maintenance period.

The Contractor's failure to obtain inspection will extend the start and/or finish of the maintenance period as applicable, unless otherwise agreed to in writing by the CITY.

308-4.5 Tree and Shrub Planting. Replace the fourth paragraph with the following:

Native shall be placed site soil without amendment in the bottom of planting holes up to the bottom of the new plant root ball.

New plant shall be set so that crown is one inch above the surrounding natural grade.

Planting holes shall be backfilled around the sides of the new plant root ball up to the surface with a prepared soil mix conforming to the following requirements (Note: this mix is for bidding purposes; see Section 308-2.3.2 for soil analysis requirements):

- 4 parts by volume nitrogen-stabilized organic amendment
- 6 parts by volume on-site soil*
- 1 lb. 12-12-12 commercial fertilizer per cubic yard of mix
- 2 lbs. iron sulfate per cubic yard of mix

* from area(s) approved by CITY

The materials shall be thoroughly mixed so that they are evenly distributed and without clods or lumps. Backfill shall be placed to be one-half inch below surrounding soil after settlement, and a watering basin shall be formed around each plant.

Fertilizer planting tablets twenty-one (21) gram size and shall be placed with each plant at the following rates:

- One (1) tablet per one (1) gallon container;
- Two (2) tablets per five (5) gallon container;
- Four (4) tablets per fifteen (15) gallon container;
- Eight (8) tablets per 24" box container;
- One (1) tablet per each three inches (3") of box size greater than 24".

Plant shall be centered in pit or trench on slight pedestal. Plants with fullest growth shall face into prevailing wind. Plant shall be set plumb and hold rigidly in position until soil has been tamped firmly around ball or roots. Plant shall be positioned in the hole and backfill shall not be higher than halfway up the root ball. If required, the recommended number of tablets shall be placed evenly around the perimeter of and immediately adjacent to, the root ball at a depth which is between the middle and the bottom of the root ball. Once backfilling is completed, it shall be tamp (all air voids eliminated) and watered. It shall not be packed.

Contractor shall construct a 4" berm above finish grade, extending 4" to 6" beyond edge of root ball, forming a watering basin with a level bottom around each plant. After a minimum of three (3) days of soaking and when the regular irrigation system is operational the berm area shall be smoothed to finish grade.

308-4.6 Plant Staking and Guying. Add the following:

All trees shall be double-staked per detail shown on Plans.

308-4.8.3 Sod Add the following:

The type of sod shall be Marathon II, Species Dwarf Tall Fescue, Variety Encore or approved equal.

Full compensation for the materials and application of sod shall be in conformance with Section 308-4.8.3 of the standard specifications and shall be per the Contract Unit Price per square foot of SOD.

308-5 IRRIGATION SYSTEM INSTALLATION

308-5.1 General. Add to the last paragraph:

The record drawings of the irrigation system shall show locations and depths of the following items:

- a) Points of connection.
- b) Routing of sprinkler pressure lines (dimension at a maximum of 100 feet along routing.
- c) All gate valves.
- d) Quick coupling valves.
- e) Rerouting of control wires.
- f) Other related equipment (as directed by Engineer).

The Contractor shall verify the water pressure available at the site before installation of the irrigation system to make sure there is adequate pressure to properly operate the irrigation heads and valves. If the pressure provided at Work site or any other Work condition will create problems that will prevent proper operation of the irrigation system, the Engineer shall be notified before commencement of any work.

Minor additions and adjustments of heads, piping, and circuits shall be made at no additional cost to the CITY where it is necessary to make the irrigation system operate properly.

Irrigation system shall comply with Assembly Bill 1881.

Contractor shall provide a qualified supervisor who shall be present at all times during execution of the work. He shall be familiar with the type of materials being installed and the manufacturers' recommended methods of installation, and direct all work performed under this section.

Temporary repairs: At any time the Contractor is not available, the CITY reserves the right to make temporary repairs as necessary to stop leaks and keep the sprinkler system in operating condition, and to charge the Contractor for labor and materials associated with such repairs.

Inspections: The CITY representative will inspect as follows. Contractor shall request inspections at least 48 hours in advance, and shall not cover any work to be inspected prior to inspection.

Preconstruction conference, prior to any irrigation work under this section.
During flushing of lines.
During pressure tests.
During coverage tests.
Final observation of completed installation prior to start of 90 day maintenance period.
At completion of the maintenance period.

Record Drawings: Contractor shall mark on reproducible copies of the irrigation plans the installed locations of all main lines, control valves, controllers, quick coupler valves, and plugged or capped outlets by measured dimensions. Measurements shall be taken from permanently established points of paving or curbs. Depth of main lines shall be shown below finished grades. Record drawings shall be kept on site for daily observation by the CITY representative, and final corrected drawings delivered to the CITY before acceptance of the work. Delivery of drawings does not relieve the Contractor of responsibility to provide any further information that may be omitted from the prints.

308-5.2 Irrigation Pipeline Installation

308-5.2.1 General. Add the following:

Trenching machines or other mechanical means of excavation shall not be used for excavation of trenches where such use may damage existing improvements. However, in any case, the Contractor will be held responsible for any damage to existing improvements caused by their operations and any damage so occurring shall be repaired to the satisfaction of the Engineer by and at the expense of the Contractor.

Trenches for pipe shall be cut to required grade, lines, and compacted to provide accurate grade and uniform bearing for the full length of the line. Contractor shall perform minor adjustments to avoid existing utilities as directed without additional cost. "Pulling" of pipe and/or control wires will not be permitted.

Depth of trenches shall be sufficient to provide a minimum cover above the top of the pipe from subgrade, as indicated on the Plans. Trenches shall not be dug deeper than as necessary to properly install pipe, and in no case deeper than 24".

Where pipe must be laid under existing pavement, it shall be encased with a 4-inch welded steel pipe sleeve which shall be constructed by jacking, boring, or hydraulic driving. If cutting or breaking of any paving is necessary, it shall be done and replaced with like material at the Contractor's expense after approval by the CITY. Pipe laid in Utility Island on Crenshaw Place shall be encased with a 4" Schedule 40 PVC pipe sleeve.

Backfilling: Backfill shall not be placed until the installed irrigation system has been inspected, approved, and tested in the presence of the CITY representative. Backfill material shall be clean site soil. Unsuitable material, including clods and rocks over 2 inches in size, shall be removed from the premises and disposed of legally at no extra cost to District. No large or sharp rocks shall bear directly on the pipe. All backfilling in landscape areas shall be done carefully and shall be properly tamped to 85% compaction. Backfill under asphalt pavement, roads, etc., shall be compacted with not less than 95% of Modified Proctor Dry Density attained in any subgrade or sub-base layer for pavement construction.

Unless otherwise directed by the Engineer, pressure piping shall be provided with PCC thrust blocks. Thrust blocks shall be constructed at the following places:

- a) Where pipe changes direction at fittings.
- b) Where pipe changes size.
- c) Where line terminates.
- d) Around gate valves (bottom half of valve in concrete; bolts exposed for change of top half)

308-5.3 Installation of Valves, Valve Boxes, and Special Equipment.

Modify the second sentence of the fifth paragraph to read:

In Islands on Frontage Road and Crenshaw Place, such equipment shall be installed in valve boxes as describe in 212-2.2.7 of these special provisions. Boxes shall be set level on 1 cubic foot (1'X1'X1') of gravel. The top of the box shall be set at grade where adjacent to pavement.

Add the following after the fifth paragraph:

Remote control valves shall be installed in locations shown on Irrigation Plans in accordance with the SPPWC and manufacturer's specifications. Remote control valves shall be 6 inches to 8 inches below finished grade, measured to top of cross arm in "open" position, or as detailed on the Plans.

Add to the last paragraph:

Backflow preventers: Reduced pressure backflow preventers shall be installed in locations shown and as noted and detailed on the Plans. Install per manufacturers' specifications and all local codes and ordinances.

Sterilization: Contractor shall insure that water lines upstream of backflow preventers are sterilized in accordance with AWWA Specification C601. All new water lines shall be sterilized for a minimum of 24 hours and shall meet all test requirements before they are placed in service. Existing water lines that are opened shall be sterilized for the maximum chlorine retention period consistent with the need for service; however, the retention period shall not be less than two hours.

308-5.4 Sprinkler Head Installation and Adjustment. Add the following:

Contractor shall field verify all horizontal and vertical site dimensions prior to staking of heads. In the event of discrepancies, immediately notify the CITY. Do not proceed with trenching or installation in these areas until discrepancies have been fully resolved.

Contractor shall not exceed the maximum spacing or the GPM or pipe sizes shown on the Contract Drawings. If spacing demands additional or less materials, adjustments shall be made without additional cost to the CITY.

Sprinkler head installation: Sprinkler heads shall be installed in the locations and as noted or detailed on the Plans, and per manufacturer's recommendations.

Reducer tees shall be used at all sprinkler risers where a pipe size changes. Bushings shall not be allowed where reducer tees may be used. PVC saddles shall not be allowed.

Sprinkler head adjustments shall be made by fully opening the sprinkler furthest from the control valve, after setting all shut-off valves in the system to full open position. The manual adjustment of the control valve shall be opened slightly to obtain a 12-inch high spray at the sprinkler mentioned above. After this condition has been met, all other sprinklers in the section shall be adjusted for equal height sprays, regulating the control valve to obtain the catalog rated pressure for the sprinkler installed. Individual heads shall be rotated, nozzles changed to different arcs or throws, and pressure-compensating screens (PCS) added as required to keep sprays within the landscape areas and prevent overspray onto paving. PCS screens and various nozzles shall be provided by the Contractor as necessary at no additional cost to the CITY.

308-5.4.2 Location, Elevation, and Spacing. Add the following to the first paragraph:

Any deviation to spacing and location of sprinkler heads shall be reported to the Engineer and have his approval before installation.

Add the following:

The Contractor shall coordinate the installation of all sprinkler heads, including pipe, with the Plans to avoid interfering with trees or other planting and/or permanent pavement.

No spray from sprinkler heads will be permitted to throw into public streets or onto walks, driveways or parking areas.

308-5.5 Automatic Control System Installation. Add the following:

Laying of control wires (24 volt): Wires shall be laid in common trench with main lines wherever possible. Splicing is allowed with 24" expansion loop only in electrical junction box with bolt down lid. Common wire shall be white in color and station wires shall each be a different color and a consistent color throughout runs. Common wire and pilot wires shall be tagged with 1/4" wide embossed plastic labeling tape, showing controller and station number designation. Plastic electrical tape shall be used to bind all control wires in bundles at 10-foot intervals. All splices shall be waterproof.

Installation of automatic controller and related appurtenances: Controller, automatic rain shutoff, and controller enclosure shall be installed in the location and as noted and detailed on Plans, and per manufacturer's recommendations.

Controller programming: Automatic controller shall be programmed by the Contractor in coordination with the CITY's maintenance personnel, as appropriate to provide adequate water to new and existing plantings for prevailing weather conditions.

308-5.6 Flushing and Testing. Add the following:

Flushing pressurized main lines: Mains shall be flushed before attaching remote control valves or quick coupler valves, with pipe center loaded. All water discharged during flushing shall be temporarily piped up and out of trenches, to keep trenches dry for pressure tests to follow. Valves shall be installed only after approval of flushing procedure by CITY.

Flushing non-pressurized lateral lines: Laterals shall be flushed before sprinkler heads are installed. All risers shall be capped, once pressure is applied, all caps shall be removed in sequence starting at cap nearest the control valve. Caps shall be replaced before removing caps to follow; Contractor shall continue to end of each lateral, until all foreign matter is flushed and mud is cleared of the system. Contractor to provide all materials needed for flushing operations.

Pressure testing: All pressure lines shall be tested after flushing under hydrostatic pressure of 125 lbs per square, and all non-pressure lines shall be tested for water tightness. Contractor shall provide all equipment for hydrostatic test, including force pump and pressure gauges. Pressure shall be sustained without pressure drop in main lines for not less than two hours. If leaks develop, the joints shall be replaced or leaks corrected in a mechanical manner without use of epoxy filler or other filler compounds, and the test repeated until the entire system is proven watertight. Tests shall be observed and approved by the CITY prior to backfill or before burial and concealment of lines.

Coverage test: Upon completion of each phase of the work, Contractor shall check and adjust each sprinkler head to meet the site and Plan requirements. When the sprinkler system is completed, Contractor shall perform a coverage test in the presence of the CITY representative, to determine that water applied to planting areas is complete and adequate. Contractor shall furnish all materials and perform all work required to correct any coverage inadequacies at no additional cost to the CITY. Contractor shall inform the CITY of any deviation from the plan required due to wind, planting, soil or site conditions that may affect proper coverage.

Add the following subsections:

308-5.7 Controller Chart.

Upon completion of the Work, the control system shall be in operating condition with an operational chart mounted in the controller cabinet.

The Contractor shall provide two controller charts for each controller supplied showing the area covered by the automatic controller on the maximum size sheet which the controller or the controller cabinet door will allow. The chart may be a reduced drawing of the actual as-built system. However, in the event the controller sequence is not legible when the drawing is reduced, it shall be enlarged or redrawn to a size that will be readable.

The chart shall be a blackline print, and a different color shall be used to show area of coverage for each station.

When completed and approved, one of the charts shall be hermetically sealed between two pieces of plastic, each piece being a minimum 20 mils. thick. This chart shall be mounted using Velcro or approved equal type of tape. The other chart shall be given to the Engineer.

These charts shall be completed and approved prior to final inspection of the irrigation system.

308-6 MAINTENANCE AND SOD ESTABLISHMENT

Replace the entire subsection with the following:

The Establishment and Maintenance Period shall begin on the first day after all planting in this Work is completed and accepted, and shall continue thereafter until ninety (90) calendar days have passed. Notify the Engineer at least seven (7) days in advance of completion. Failure by the Contractor to notify the Engineer will delay the start of the Establishment and Maintenance Period.

Should the Establishment and Maintenance Period be extended beyond the prescribed 90 calendar days because of rejection by the Engineer for whatever reason, the entire installation shall remain the responsibility of the Contractor unless otherwise determined by the Engineer. Any rejected material shall be replaced and the 90 calendar day Establishment and Maintenance Period shall be restarted from that time for the replaced material only.

All areas landscaped or restored under this Contract shall be maintained by the Contractor. The Contractor, without any expense to the CITY, shall weed the planted areas as needed and shall remove all accumulated debris from the landscaped areas as needed and/or as called for by the Engineer.

One month after planting and once again at the end of the 90 calendar day Establishment and Maintenance Period, Contractor shall fertilize plants with 12-12-12 (N-P-K) commercial fertilizer at the rate of fifteen (15) pounds per 1,000 square feet of planting area, or as otherwise recommended in the Agricultural Soil Suitability Report.

Apply Iron Sequestrene as specified by the manufacturer immediately at the onset of any symptom of iron chlorosis. Repeat fertilization monthly for duration of maintenance period.

The above fertilization schedule may be revised by the Engineer if, in his/her opinion, optimal plant health and growth is not being obtained. The Contractor shall comply with all changes as directed.

Contractor shall continuously maintain, monitor, and adjust the irrigation system for 90 calendar days following completion as designated by the CITY. Maintenance shall include repair or replacement of defective equipment, repair of leaks, adjustment of heads, valve boxes, and other equipment to grade, filling of trenches where grade settles, adjustment of sprinkler throw patterns, addition of pressure reducing screens, flushing debris from nozzles, programming of controller as appropriate for weather conditions and plant establishment, and other work as directed by the CITY.

The Contractor shall be responsible to provide adequate water to all plants without over-watering. Water conservation is mandated. The Contractor shall obtain approval from the Engineer for its proposed irrigation schedule and any changes thereto.

All sprinkler heads, valve boxes, quick coupler valves, and any other equipment that may be damaged by landscape maintenance shall be set flush to finish grade, or as shown on the Plans, prior to final acceptance. Contractor shall replace any equipment damaged during the Contractor's Maintenance Period at no cost to the CITY.

All equipment shall be checked and adjusted as necessary in height, location, performance, and appearance prior to final acceptance. All damaged items shall be replaced with new materials of same kind at no cost to the CITY.

Items to be furnished by Contractor: Controller maintenance charts - provide hermetically sealed plastic covered charts in each automatic controller, showing only the systems operated by that controller. Charts to be as large as possible to fit door and meet approval of the CITY before being acceptable for insertion in plastic. Charts to be in controllers prior to the final observation. At the time of final acceptance, the Contractor shall deliver the following items to the CITY:

- One control valve key, 30" long, for every six remote control valves installed.
- Two special wrenches suitable for operating each type of shut-off valve installed.
- Two tools for disassembly and assembly or adjustment of each type of equipment used in this installation requiring special tools.
- One valve box key for every six lock lid valve boxes used in this installation.
- Two keys for automatic controller enclosure.
- Two quick coupler keys with hose-end fittings
- Operating instructions and parts lists, as printed by manufacturer of each type of equipment used.
- List of equipment with contact information for local manufacturer representatives.

308-7 GUARANTEE

Add the following:

The Contractor, without expense to the CITY, shall adjust all irrigation heads to their appropriate operational heights, shall adjust and clean all irrigation heads so that the planting areas are properly covered and they shall be adjusted or changed, or pressure-compensating screens added so as to prevent excessive overflow into the adjacent street right-of-way.

The CITY reserves the right to make temporary repairs as necessary to keep the irrigation system equipment in operating condition. The exercise of this right by the CITY shall not relieve the Contractor of its responsibility under the terms of the Contract as herein specified.

Maintenance of irrigation systems shall be done by qualified and experienced irrigation pipefitters.

All twenty-four inch (24") box and larger trees installed under the contract shall be guaranteed to live and grow for one (1) year from the date of final acceptance of the contract work unless decline of the tree is specifically attributable to causes unrelated to installation, plant material quality, and the Contractor's maintenance practices.

All other plant material shall be guaranteed to live and grow for a period of ninety (90) calendar days from the date of final acceptance of the contract work unless decline of the plant material is specifically attributable to causes unrelated to installation, plant material quality, and the Contractor's maintenance practices.

Any plant material found to be dead, missing, or in poor condition during the post-construction maintenance period, shall be replaced immediately at the Contractor's expense.

The CITY shall be the sole judge as to the condition of plant materials. Replacement shall be per the same specifications required for the original plantings.

During the guarantee period, should the Contractor fail to expeditiously replace dead plant material upon written notification by the CITY, the CITY shall evaluate the work to be corrected and bill the actual costs incurred to the Contractor. The date of final acceptance for the start of the guarantee period shall be following completion of the 90-day maintenance period, as designated by the CITY.

308-8 PAYMENT

Add the following subsections:

308-8.1 Payment.

Payment for specified bid items as shown on plans, and these special provisions for providing and amending top soil including fertility test; furnishing and planting trees, including stakes and root barrier; furnishing and planting shrubs and ground cover plants; furnishing and installing PVC moisture barrier surrounding landscaped areas and shredded bark mulch; furnishing and installing complete irrigation system, PVC pipe, and welded steel irrigation sleeve and all appurtenances; and relocation of trash receptacle shall include full compensation for all labor, materials and equipments to complete this work and shall be per the Contract Unit Price or Contract Lump Sum Price in accordance with plans, specifications and bid schedule.

308-8.2. Payment.

Payment for plant establishment and maintenance shall be per the Contract Lump Sum Price for PLANT ESTABLISHMENT and shall include full compensation for all tool, materials, labor, equipment, water and incidentals to complete this work in accordance with Plans and these Special Provisions.

SECTION 310 - PAINTING

310-5 PAINTING VARIOUS SURFACES.

310-5.6 Painting Traffic Striping, Pavement Markings and Curb Markings. Delete the entire subsection 310-5.6 and replace with Sections 84-1 and 84-2 of the Caltrans Standard Specifications.

The Contractor shall paint red curb markings as shown on the signing and striping plans. When street addresses painted on curb faces have been eliminated due to work associated with this contract, each street address shall be restored by painting on the face of new curb. Background shall be white in color and address numbers shall be black in color and 4 inches in height. Existing paint markings on curbs shall be removed prior to applying the new paint markings.

84-1.01 Description. Replace the first two paragraphs with the following:

This work shall consist of applying thermoplastic traffic stripes (traffic lines) and pavement markings at the locations and in accordance with the details shown on the Plans or designated by the Engineer, and as specified in these Specifications and Special Provisions.

The thermoplastic material shall conform to the provisions of 84-2.02 of the Caltrans Standard Specifications.

84-2.06 Payment. Replace the entire subsection with the following:

The contract lump sum price STRIPING, MARKINGS AND PAVEMENT MARKERS paid for thermoplastic traffic striping, pavement markings, legends, and arrows shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in applying thermoplastic traffic stripes; furnishing and placing retroreflective pavement markers, and thermoplastic pavement markings, complete in place, including adhesives, and establishing alignment for stripes, pavement markers, pavement markings and layout work, temporary pavement painting as shown on the plans, as specified in the standard specifications and these special provisions, and as directed by the engineer.

SECTION 312 – PAVEMENT MARKER PLACEMENT AND REMOVAL

Delete the entire Section 312 and replace with Sections 85-1.06, 85-1.07 and 85-1.09 of the Caltrans Standard Specifications.

85-1.06 Placement. Add the following:

The 50-foot long 4" solid white lines at intersections shall have a marker Type "G" installed at each end. These markers shall be placed on the line.

Markers shall not be installed on bike lane striping.

Fire hydrant, type 1, two way blue reflective pavement markers shall also be include where applicable. The blue reflective pavement makers need to be in conformance section 214 and 312 of the Standard Specification or as directed by the Engineer.

85-1.09 Payment. There shall be no separate payment for pavement markers. Full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in furnishing and placing pavement markers, complete in place, including adhesives and establishing alignment for pavement markers, as shown on the Plans, and specified in these Special Provisions shall be included in the Contract price for STRIPING, MARKINGS AND PAVEMENT MARKERS as described in Section 84-2.06 of these Special Provisions.

SECTION 315 - SIGNAGE

Add the entire Section 315.

315.1 ROADSIDE SIGNS. All signs shall be installed in accordance with the requirements of Section 56-2.03 of the Caltrans Standard Specifications, Caltrans Standard Plans and these Special Provisions. Roadside signs shall be installed at the locations shown on the Plans or where directed by the Engineer.

All signs shown on the signing and striping plans shall be new signs provided and installed by the contractor, except for existing signs specifically indicated to be relocated or to remain.

All signs shall be of 3M Diamond Grade Cubed, with 1160 protective anti-graffiti overlay film and matched components system warranty (12 years) on 0.080 Aluminum with "Torrance" and year on border.

56-2.03 CONSTRUCTION. Delete the third paragraph and last sentence of the eleventh paragraph.

Delete the entire subsection 56-2.05.

56-2.06 PAYMENT. Replace the entire subsection with the following:

Payment for roadside signs and/or posts, installation of Transit Bus Stop signs, and Object Markers shall be per unit per the Contract Unit Price and shall include all labor, materials, tools, equipment, and for doing all the work involved in furnishing and installing roadside signs, complete in place, as shown on the Plans and these Special Provisions, and as directed by the Engineer.

APPENDIX I

CITY OF TORRANCE PERMIT AND BUSINESS LICENSE



City of Torrance, Community Development Department

Permit Application Form

3031 TORRANCE BLVD. • TORRANCE, CA 90503

OWNER/APPLICANT INFORMATION

Name: _____

Address: _____

City/State: _____

Zip: _____

Telephone: _____

Fax: _____

**Excavation permits will not be issued without
USA I.D. Number.**

Underground Service Alert
Call: 811

USA I.D. # _____

Date Received: _____

CONTRACTOR INFORMATION

State License #: _____

Class: _____ Exp. Date: _____

City Business #: _____

**CONTRACTOR: Certificate of Insurance
REQUIRED prior to issuance of permit.**

JOB LOCATION/ADDRESS (closest street address)

Please list cross streets: _____

DESCRIPTION OF WORK

LF Trench _____

Width of Trench _____

LF Curb & Gutter _____

LF Bore _____

Sewer Connection _____

Number of Curb Drains _____

SF Asphalt _____

SF Concrete _____

Work Order Number (for utility companies): _____

Applicant or Authorized Signature: _____

For further permit information, please call 310-618-5898 or fax 310-618-2846.

Contractor License Requirements

Curb/Gutter.....	A (General Engineering) C8 (Concrete Contractor)	Sewer Lateral/Mainline.....	A (General Engineering) C34 (Pipeline Contractor) C42 (Sanitation Contractor)
Driveways.....	A (General Engineering) C8 (Concrete Contractor)	Storm Drain Lateral/Mainline.....	A (General Engineering) C34 (Pipeline Contractor) C42 (Sanitation Contractor)
Sidewalks.....	A (General Engineering) B (General Building) C8 (Concrete Contractor)	U/G Utilities.....	A (General Engineering) (Water, Gas or Oil).....C34 (Pipeline Contractor)
Street/Alley.....	A (General Engineering) C8 (Concrete Contractor) C12 (Earth and Paving Contractor)	U/G Electrical.....	A (General Engineering) C8 (Concrete Contractor) C12 (Earth and Paving Contractors)

Standard Requirements

- 1) **SCHEDULE INSPECTIONS 24 HOURS IN ADVANCE** (pre-job, work start, interim, final). Call 310-618-5898 between working hours of 7:30 AM – 5:30 PM. **Pre-job meetings for WATER permits shall be scheduled 72 hours in advance.**
- 2) **TRAFFIC CONTROL** shall be per City of Torrance standards or Manual on Uniform Traffic Control Devices (MUTCD). Street closure shall be per City of Torrance Standard T603. Major street lane closures between 8:30 AM – 3:30 PM only. **ONE STANDARD ARROWBOARD REQUIRED FOR EACH LANE CLOSURE.**
- 3) Do not remove any trees or shrubs without approval of Torrance Public Works Department/Streetscape (310-781-6900).
- 4) **Contractor will be billed for overtime inspection services.** OVERTIME REQUESTS must be submitted for approval 24 hours in advance.
- 5) Construction site **CLEANUP** and **GRAFFITI (USA MARKINGS)** removal must be completed prior to finaling of this permit. Any graffiti on construction signs must be removed or the sign replaced within 24 hours of notification.
- 6) Any street striping, crosswalk, raised reflective pavement marker or pavement markings damaged by this construction shall be replaced to the satisfaction of the Torrance Public Works Department/Traffic Division (310-781-6900).
- 7) **THIS PERMIT WILL BE REVOKED** if any pollutant is released into or allowed to remain in any component of the City drainage system.
- 8) Trench backfill and pavement repairs shall be per City of Torrance Standard T116.
- 9) Any public irrigation system components damaged by this construction shall be replaced to the satisfaction of Community Services/Park Services Division (310-618-2930).
- 10) All survey monuments in the project area **MUST** be located and tied out and a Corner Record filed prior to the start of construction. Also, all destroyed monuments must be replaced prior to receiving final inspection.
- 11) It is the responsibility of the contractor to **REPLACE** any **PAVEMENT** removed by this construction.
- 12) The City of Torrance is held harmless from the results of any action or accidents caused by the permittee, his employees, or equipment in the performance of the work described or covered in this permit. Validation of this permit **SHALL NOT** be held to permit or to be an approval of the violation of any applicable provision of the City Code covering this work, or any other provisions of the City of Torrance Code. In the granting of a Construction & Excavation permit, the Community Development Director may impose such conditions thereon, in addition to those otherwise provided herein, as are reasonably necessary to prevent the proposed operations from being conducted in such a manner as to constitute or create a **HAZARD OR BE DETRIMENTAL TO LIFE OR PROPERTY.**
- 13) See additional conditions attached to this permit.

**NOTICE
CITY OF TORRANCE
COMMUNITY DEVELOPMENT DEPARTMENT/
ENGINEERING DIVISION
NEW INSURANCE REGULATIONS**

The City of Torrance Community Development Department/Engineering Division will be requiring proof of liability insurance from each contractor applying for a Construction & Excavation permit to work in the public right-of-way or in a public easement beginning October 1, 2001. Insurance shall cover contractor and vehicles used in the construction. The attached requirements dated September 20, 2001 will detail the insurance limits.

All insurance certificates shall have an additional clause that states: *"The City of Torrance, the City Council and each member thereof, members of boards and commissions, every officer, agent, official, employee and volunteer"* as additional insured.

Contractors should bring in proof of insurance at the time of application for permit. For major companies that are self-insured, a letter stating this fact and signed by an officer of the firm will be acceptable. Annual insurance may also be kept on file for contractors working periodically within the City of Torrance.

If you have any questions, please contact the Engineering Division Permit Counter at 310-618-5898.

JEFFERY W. GIBSON
Community Development Director
City of Torrance

EFFECTIVE 8/11/03

8/11/03

**CITY OF TORRANCE
COMMUNITY DEVELOPMENT DEPARTMENT/
ENGINEERING DIVISION**

**PERMIT APPLICATION FORM
INSURANCE REQUIREMENTS**

Any entity performing work on City streets, right-of-way, and property must comply with the following requirements.

1. TYPE OF INSURANCE

Any entity performing work must maintain at their sole expense the following insurance, which shall be full coverage not subject to self-insurance provisions.

- General Liability including coverage for premises, products and completed operations, underground hazards, independent contractors, personal injury and contractual obligations with combined single limits of at least \$1,000,000 per occurrence.
- Automobile Liability, including owned, non-owned and hired vehicles, with at least the following limits of liability:
 - Primary Bodily Injury with limits of at least \$500,000 per person, \$1,000,000 per occurrence **AND**; Primary Property Damage with limits of at least \$500,000 per occurrence, **OR**
 - Combined single limits of at least \$1,000,000 per occurrence.
- Workers' Compensation with limits as required by the State of California and Employer's Liability with limits of at least \$1,000,000.

2. CERTIFICATES

- Certificates or an attached endorsement must be provided that contains the following provisions:
 - The City of Torrance, the City Council and each member thereof, members of boards and commissions, every officer, agent, official, employee and volunteer must be named as additional insured under the automobile and general liability policies.
 - The insurance policies required by this clause shall contain a provision that no termination, cancellation or change of coverage can be made without 30 days written notice to the City.

3. FILING REQUIREMENTS

- Certificates of insurance and/or endorsements must be provided to the Community Development Department, Permits and Records Section, 3031 Torrance Blvd., Torrance, CA 90503, prior to the issuance of the permit.

4. ADDITIONAL REQUIREMENT

- Insurance required of any entity performing work will be satisfactory only if issued by companies rated "B+" or better in the most recent edition of Best's Key Rating Guide, and only if they are of a financial category of a VII or better, unless these requirements are modified or waived by the City's Risk Manager.

FOR OFFICIAL USE ONLY

1. LICENSE NO.

2. CATEGORY NO.

3. NAICS CODE

HOME OCCUPATION

HEALTH PERMIT



City of Torrance, Revenue Division
Business License Application

3031 Torrance Blvd, Torrance, CA 90503 • 310/618-5828 • 310/618-5852 Fax

PART I. APPLICANT TO ANSWER ALL QUESTIONS IN THIS SECTION (print or type)

4. BUSINESS NAME OR DBA		5. CORPORATE NAME (IF DIFFERENT FROM ABOVE)	
6. BUSINESS ADDRESS		SUITE #	CITY
7. MAILING ADDRESS		SUITE #	CITY
8. NATURE OF BUSINESS (state type of business being conducted at this location)		9. NO. OF PERSONS WORKING IN TORRANCE	10. BUSINESS PHONE
12. NAME OF PERSON MAKING APPLICATION (must be an owner, partner or corporate officer)		13. TITLE	14. HOME PHONE
16. RESIDENCE ADDRESS		CITY	STATE
19. STATE CONTRACTOR'S LICENSE #		20. SQUARE FOOTAGE	21. STATE SELLERS PERMIT #

24. OWNERSHIP INFORMATION		SOLE OWNERSHIP	
NAMES OF OWNER, PARTNERS, OR PRINCIPAL OFFICERS		HOME ADDRESS	
TITLE		HOME PHONE	

I declare that I am the owner, partner, corporate officer or person with the power of attorney, and I understand if all the information provided above is not the true the business license being applied for may be revoked as outlined in section 31.9.10 of the Torrance Municipal Code.

I am duly authorized to make this application. All of the information provided in this application is true and correct. The business will not provide any service, good or product which is illegal under Federal, State, or Local Laws. I declare under penalty of perjury that the foregoing is true and correct.

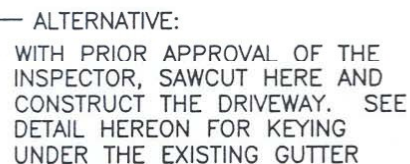
SIGNATURE	DATE
-----------	------

PART II. FOR OFFICIAL USE ONLY

BASIC FEE	APPLICATION SENT FOR ZONING?		PROCESSING FEE	FIRE INSP. FEE	OTHER
PER PERSON FEE	OTHER (cont'd)				
PENALTY FEE	HOLD	YES	NO	ENT. FEE	DANCE/PIANO FEE
RECEIVED BY	DATE	CHECK NO.	BANK NO.	CASH	TOTAL AMOUNT
					\$

APPENDIX II

CITY OF TORRANCE STANDARD PLANS



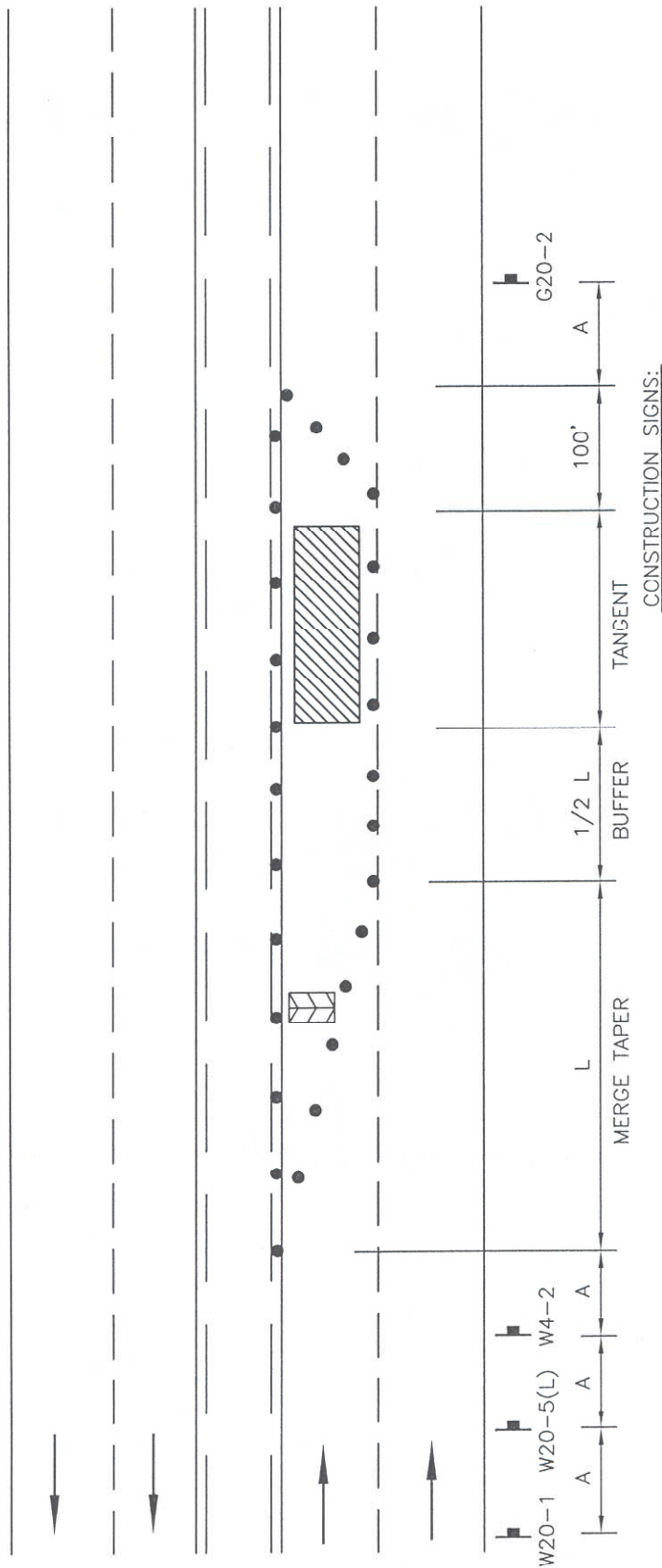
CITY OF TORRANCE

DRIVEWAY IN NARROW PARKWAY

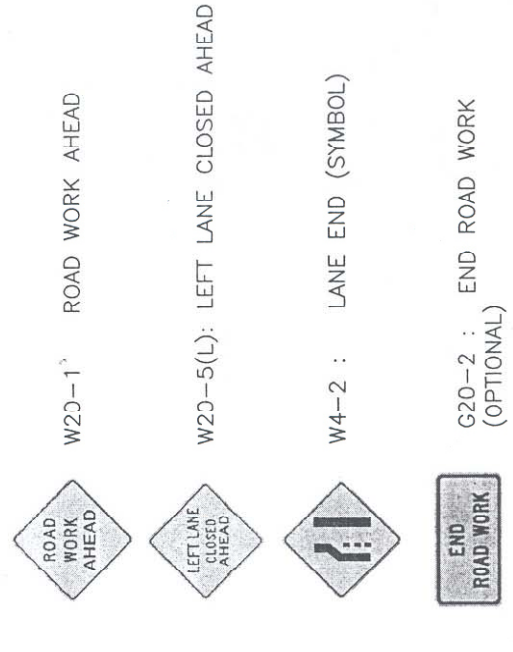
16th / 15th

T108

SHEET 1 OF 1



MINIMUM RECOMMENDED DELINEATOR AND SIGN PLACEMENT				
DESIGN SPEED	MERGE TAPER LENGTH (L)	DELINEATOR SPACING		BUFFER LENGTH (1/2 L)
		(TAPER)	(TANGENT)	
30 MPH	180 FT.	30 FT.	60 FT.	90 FT.
35 MPH	245 FT.	35 FT.	70 FT.	125 FT.
40 MPH	320 FT.	40 FT.	80 FT.	160 FT.
45 MPH	540 FT.	45 FT.	90 FT.	270 FT.
50 MPH	600 FT.	50 FT.	100 FT.	300 FT.



- LEGEND:**
- TRAFFIC DRUM OR 36" POST TUBE DELINEATOR
 - ▨ WORK AREA
 - FLASHING RIGHT ARROW
 - SIGN WITH FLAG TREE
 - TRAFFIC DIRECTION

CITY OF TORRANCE - WORK AREA TRAFFIC CONTROL

DATE ISSUED
19 FEB 2008

ARTERIAL & COLLECTOR LEFT LANE CLOSURE

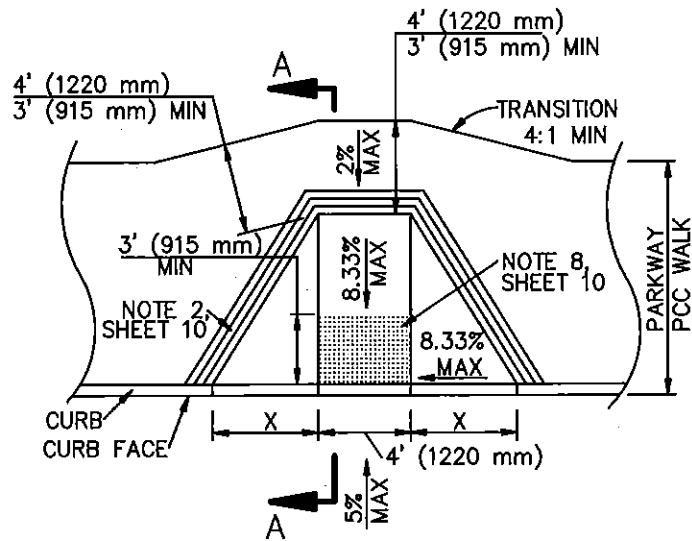
ROBERT J. BESTE
PUBLIC WORKS DIRECTOR
R.C.E. NO. 50737

STANDARD NO.
T1005

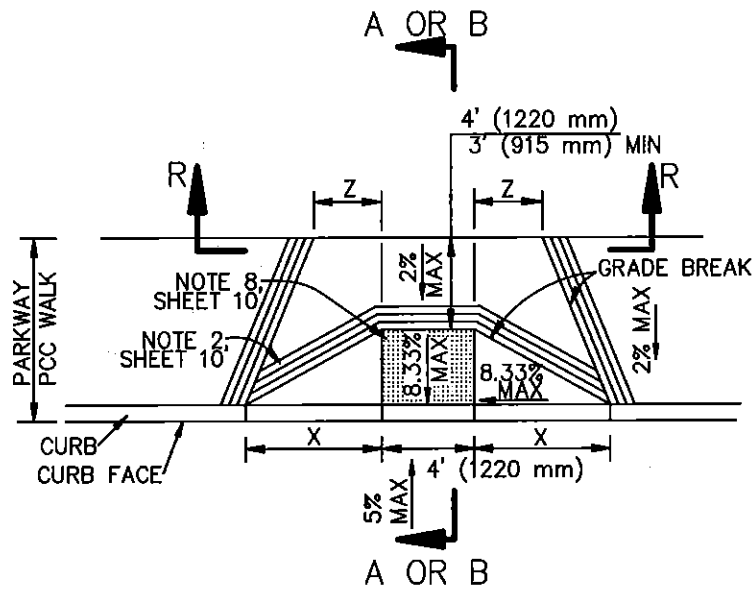
SHEET 1 OF 1

APPENDIX III

SPPWC STANDARD PLANS



TYPE 1



SEE SHEET 7, THIS SECTION

TYPE 2
CASE A

STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION

PROMULGATED BY THE
PUBLIC WORKS STANDARDS INC.
GREENBOOK COMMITTEE
1992
REV. 1998, 2000, 2005, 2009

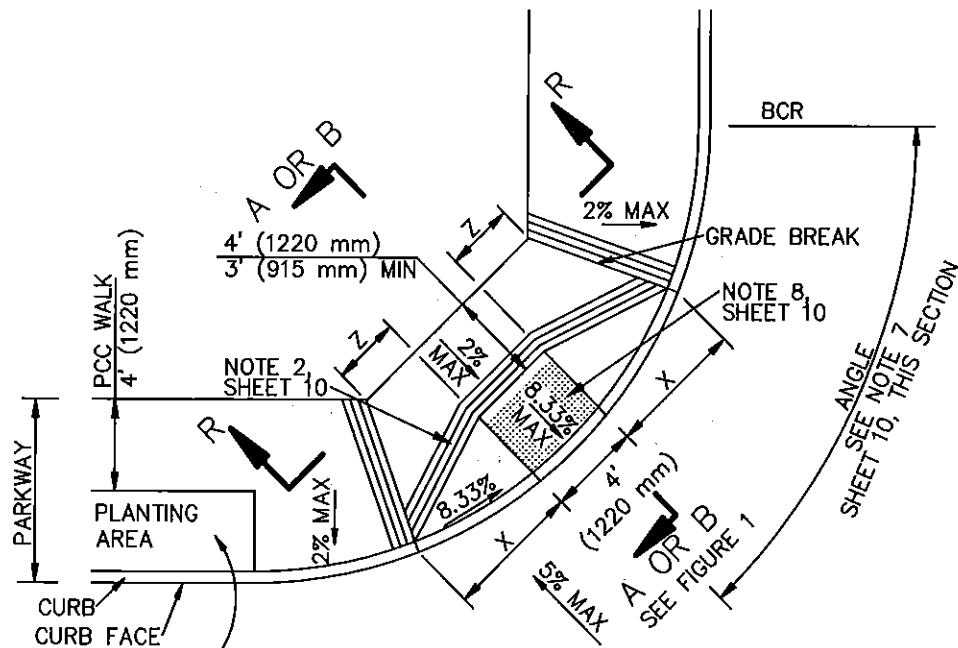
CURB RAMP

USE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

STANDARD PLAN

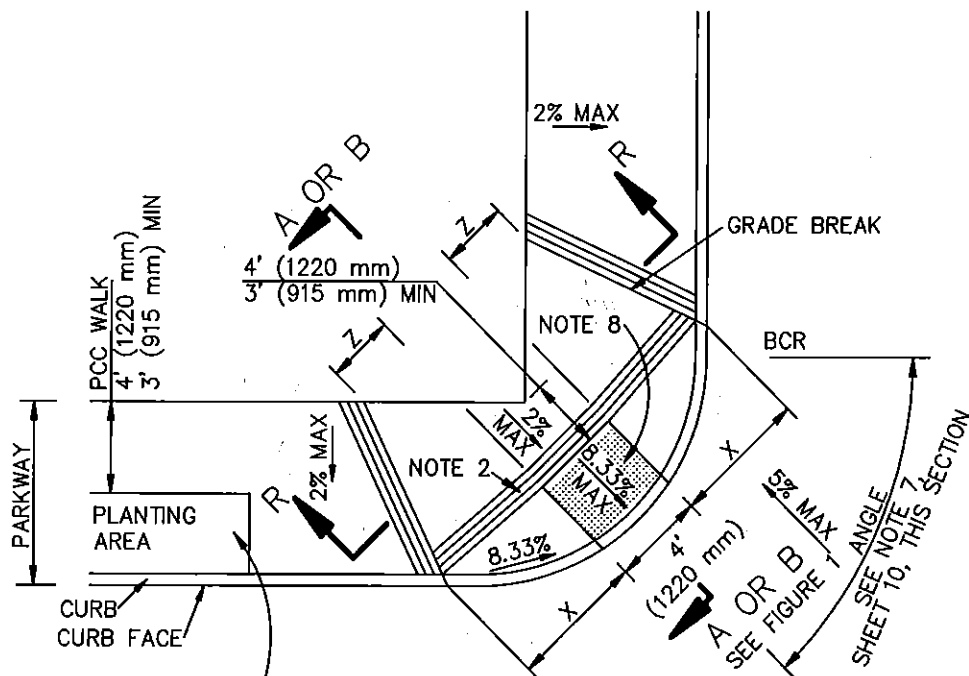
111-4

SHEET 1 OF 10



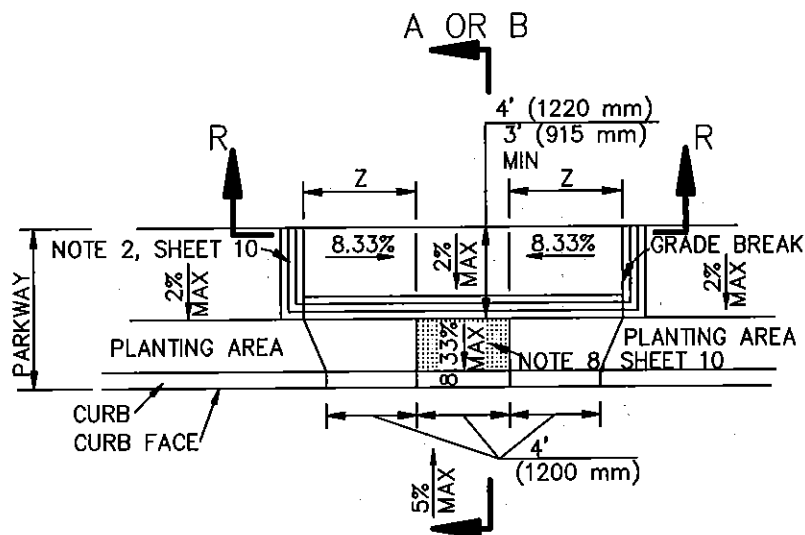
WHERE PLANTING AREA IS
ADJACENT TO THE CURB RAMP,
USE CASE A, TYPE 6

TYPE 3



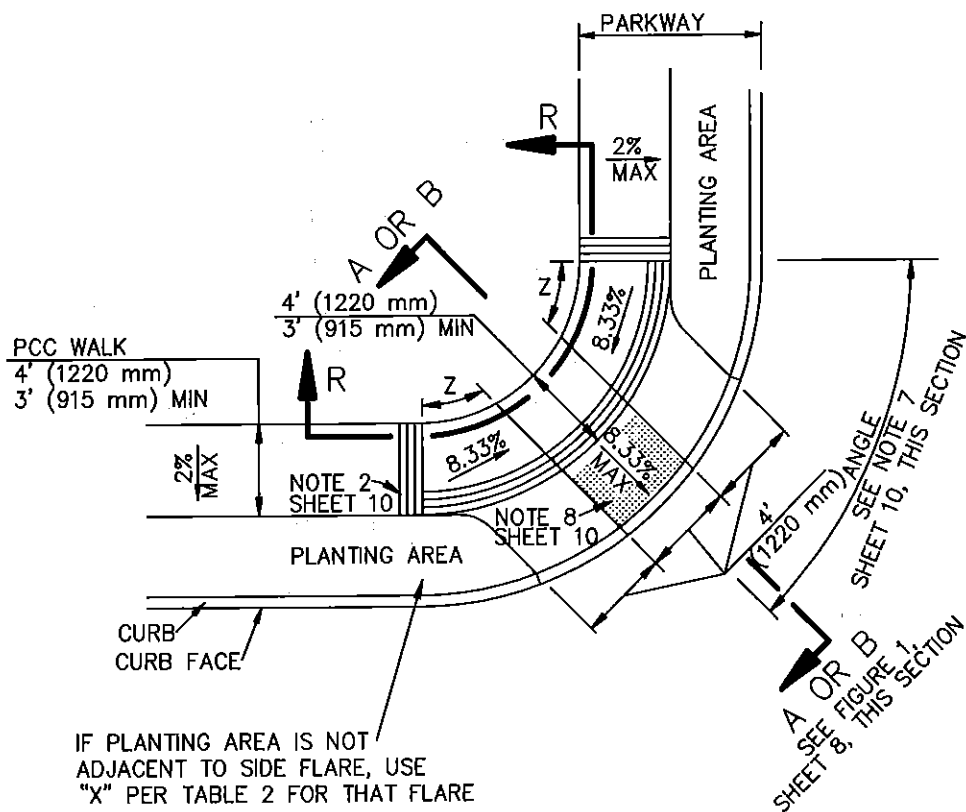
WHERE PLANTING AREA IS
ADJACENT TO THE CURB RAMP,
USE CASE A, TYPE 6

TYPE 4
CASE A



A OR B
SEE FIGURE 1, SHEET 8, THIS SECTION

TYPE 5



TYPE 6 CASE A

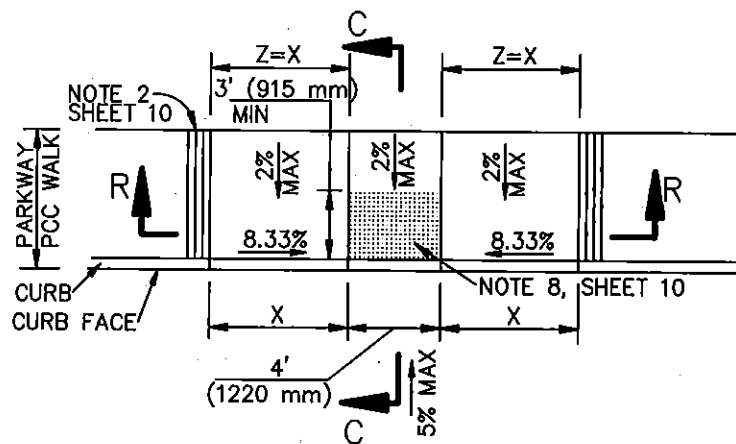
STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION

CURB RAMP

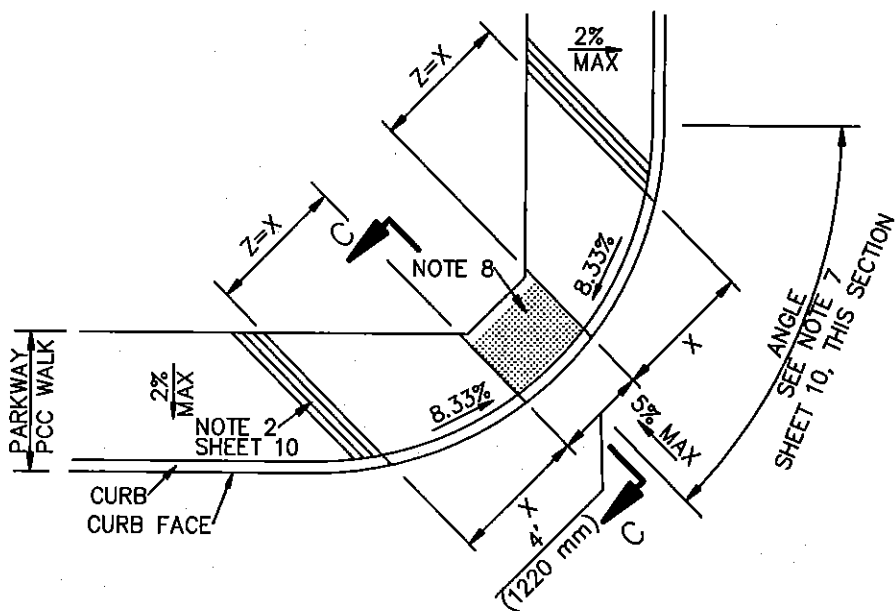
STANDARD PLAN

111-4

SHEET 3 OF 10

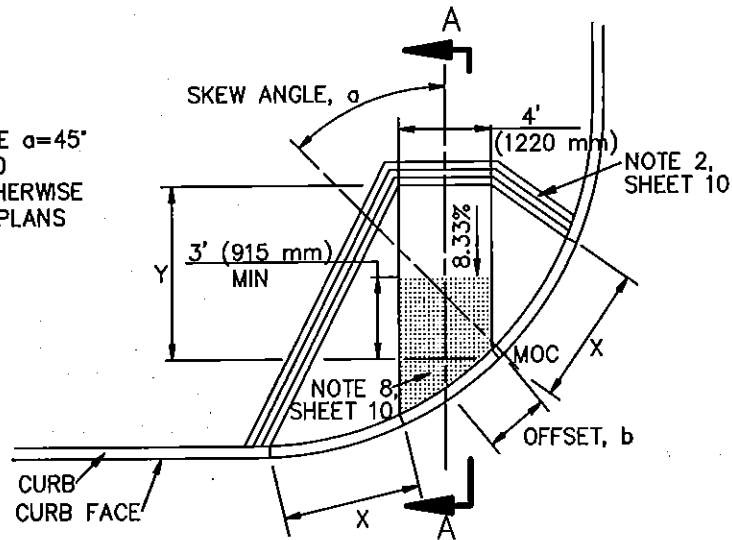


TYPE 1

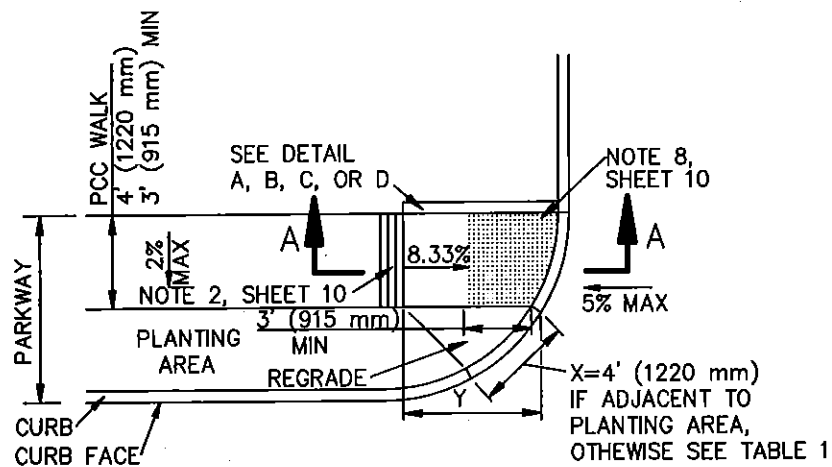


TYPE 2
CASE B

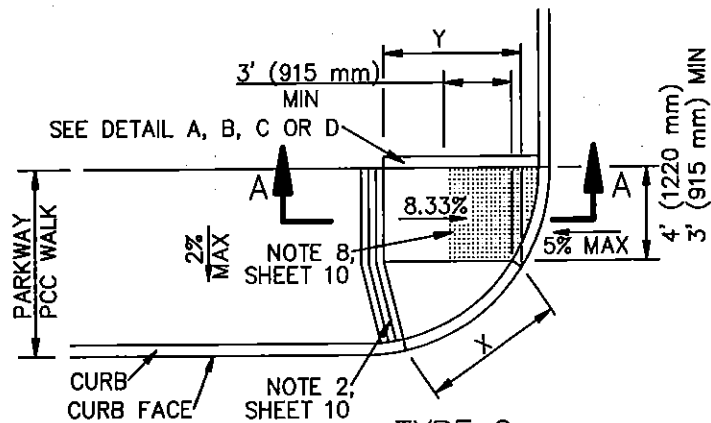
SKEW ANGLE $\alpha=45^\circ$
 OFFSET $b=0$
 UNLESS OTHERWISE
 NOTED ON PLANS



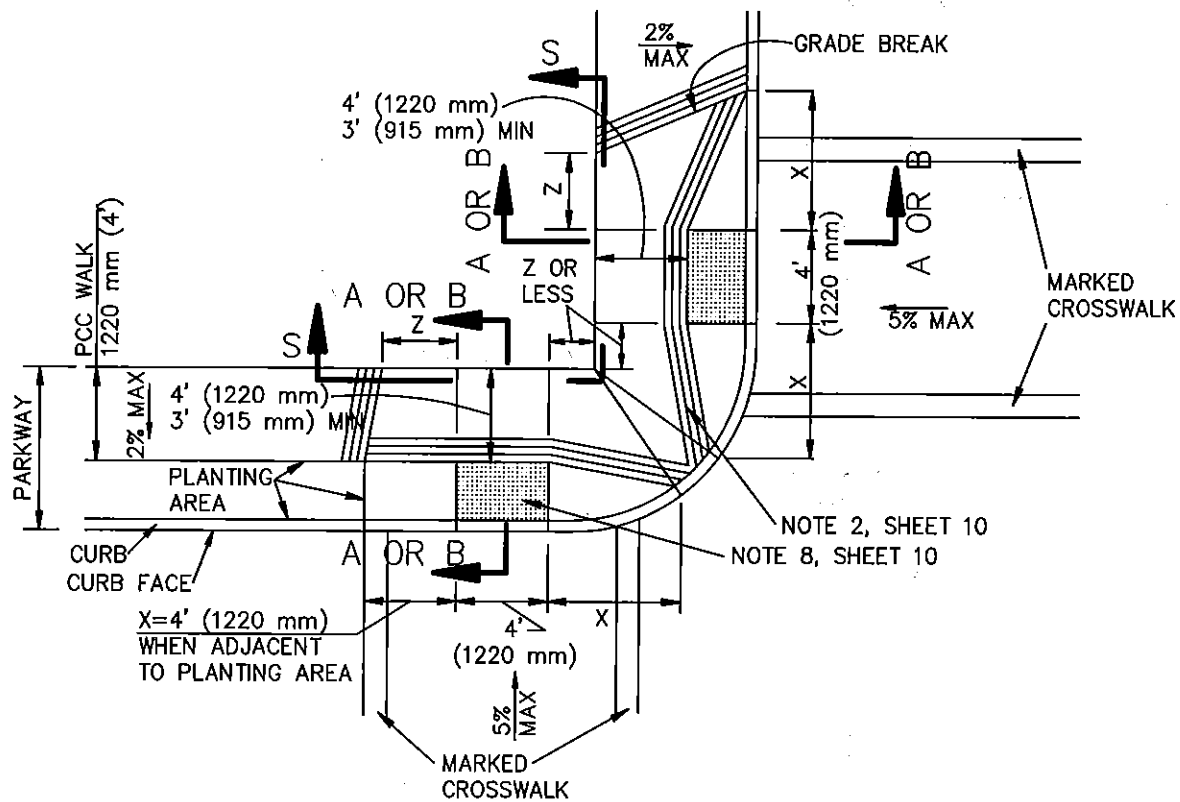
CASE C



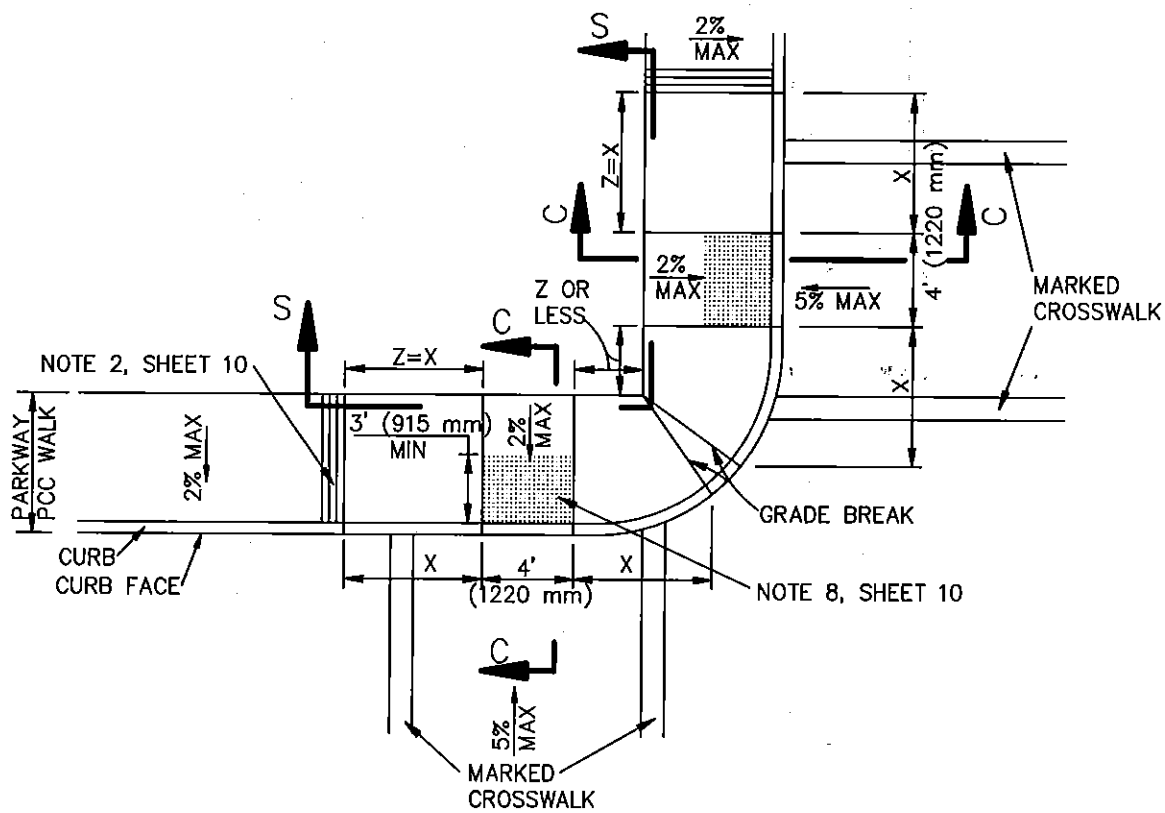
TYPE 1



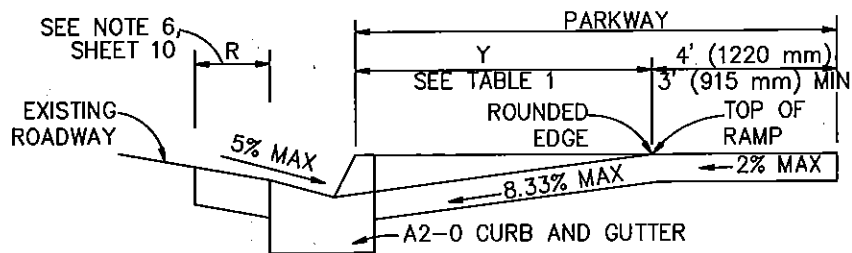
TYPE 2
 CASE D



TYPE 1

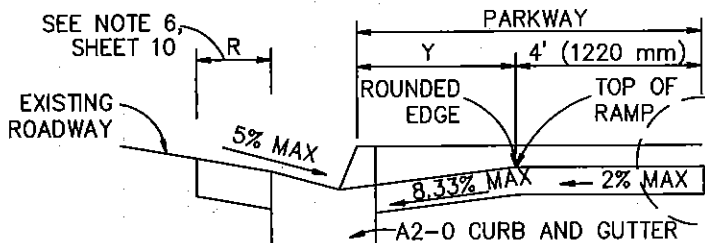


TYPE 2
CASE E

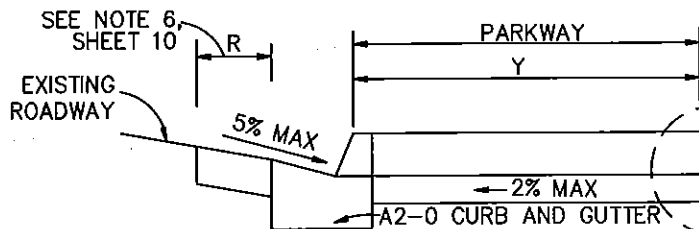


SECTION A-A

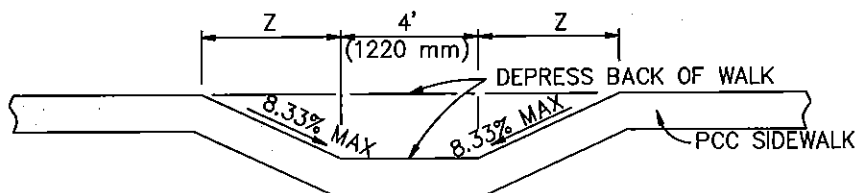
USE FIGURE 1 TO DETERMINE WHICH OF SECTIONS A-A, B-B OR C-C IS APPROPRIATE.



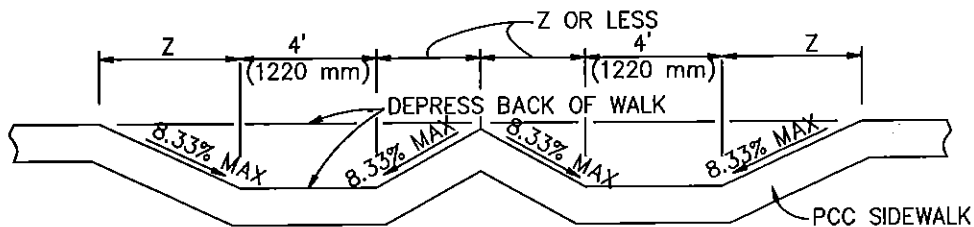
SECTION B-B



SECTION C-C



SECTION R-R



SECTION S-S

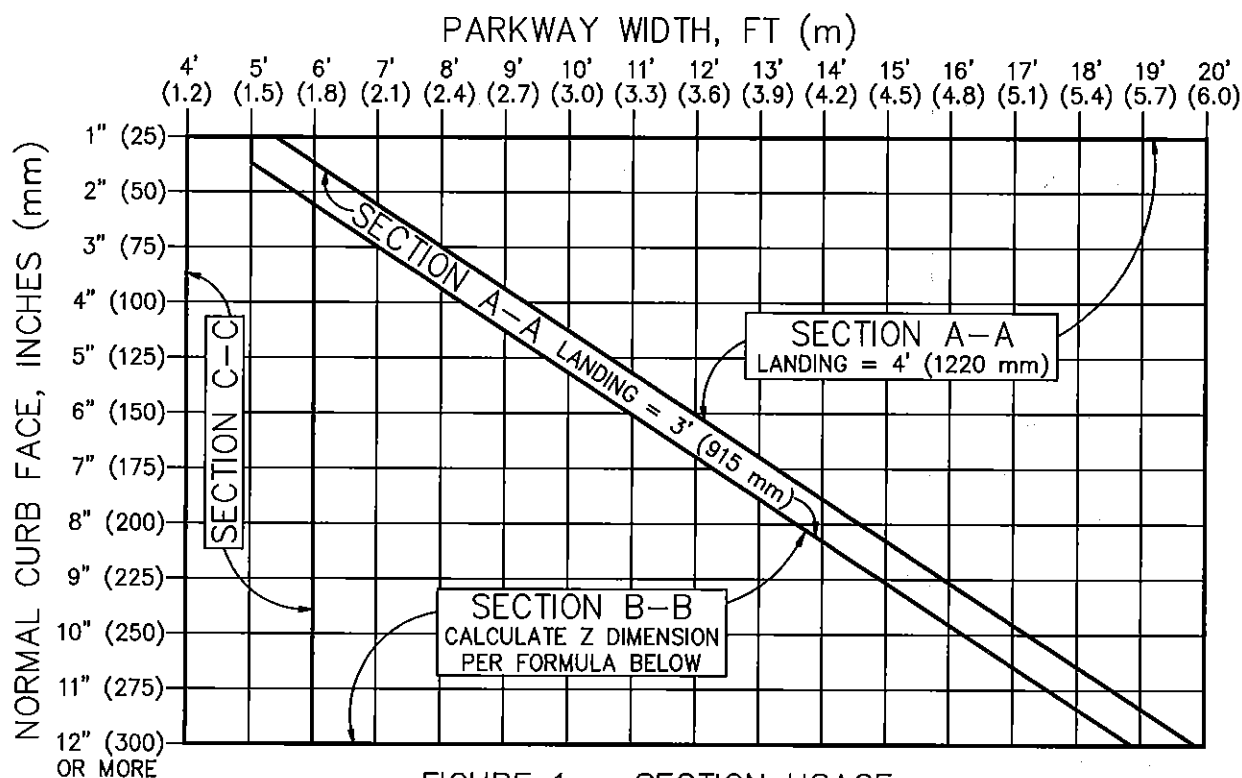


FIGURE 1 - SECTION USAGE

NORMAL CURB FACE, INCHES (mm)	X, FT (mm)	SECTION Y-Y Y, FT (mm)
2" (50)	4.00' (1200) MIN	2.63' (790)
3" (75)	4.00' (1200) MIN	3.95' (1185)
4" (100)	4.00' (1200)	5.26' (1580)
5" (125)	5.00' (1500)	6.58' (1975)
6" (150)	6.00' (1800)	7.90' (2370)
7" (175)	7.00' (2100)	9.21' (2765)
8" (200)	8.00' (2400)	10.53' (3160)
9" (225)	9.00' (2700)	11.84' (3555)
10" (250)	10.00' (3000)	13.16' (3950)
11" (275)	11.00' (3300)	14.47' (4340)
12" (300)	12.00' (3600)	15.79' (4735)

WHERE FIGURE 1 SHOWS USE OF SECTION B-B, FIGURE Z DIMENSION AS FOLLOWS:

W = PARKWAY WIDTH

L = LANDING WIDTH, 4' (1220 mm) TYP, 3' (915 mm) MIN

$$Z = [(Y+L)-W] \times 0.760$$

IF $(Y+L) < W$, THEN $Z = 0$

TABLE 1 SHOWS X FOR A FLARE SLOPE OF 8.33% AT THE CURB FACE. IF L IS 4' (1220 mm) OR MORE, X MAY BE MULTIPLIED BY 0.833 FOR A MAXIMUM FLARE SLOPE OF 10% AT THE CURB FACE.

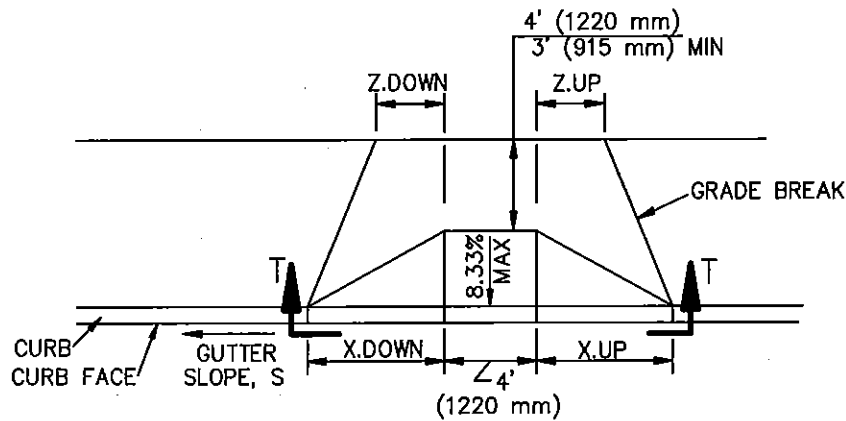
SEE SHEET 9 FOR STREET SLOPE
ADJUSTMENT FACTORS, ALL STREETS

TABLE 1 - X AND Y VALUES

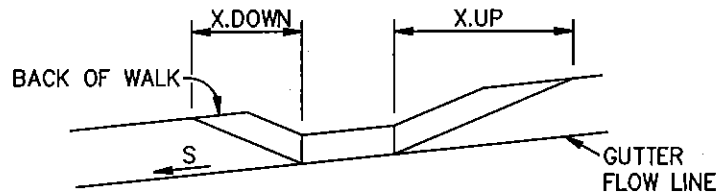
TABLE 1 REFERENCE FORMULAS:

$$X = CF / 8.33\%$$

$$Y = CF / (8.33\% - 2\% \text{ WALK CROSS SLOPE})$$



TYPICAL CURB RAMP



SECTION T-T
SLOPED STREET

FOR SLOPED STREETS, MULTIPLY THE DIMENSIONS PARALLEL TO THE STREET, X AND Z, UPSTREAM AND DOWNSTREAM OF THE RAMP, BY THE FACTORS IN THE FOLLOWING TABLE.

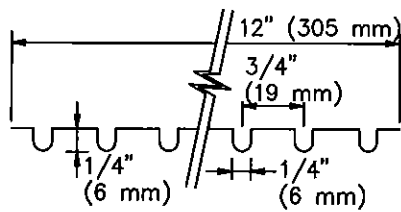
FOR EXAMPLE, $X.DOWN = X \times K.DOWN$

S	K.DOWN	K.UP
0%	1.000	1.000
0.2%	0.977	1.025
0.5%	0.943	1.064
1%	0.893	1.136
2%	0.806	1.316
3%	0.735	1.563
4%	0.676	1.923
5%	0.625	2.500

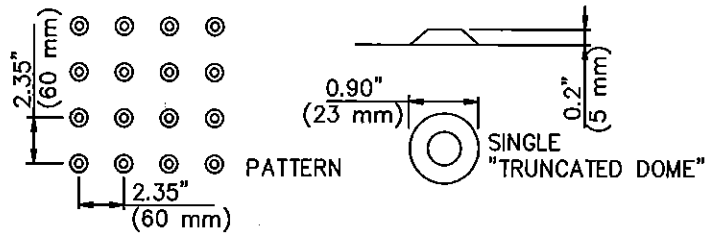
TABLE 2 - SLOPE ADJUSTMENTS

TABLE 2 REFERENCE FORMULAS:
 $K.DOWN = 8.333\% / (8.333\% + S)$
 $K.UP = 8.333\% / (8.333\% - S)$

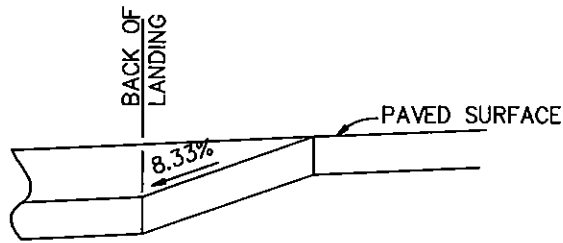
STREET SLOPE ADJUSTMENTS



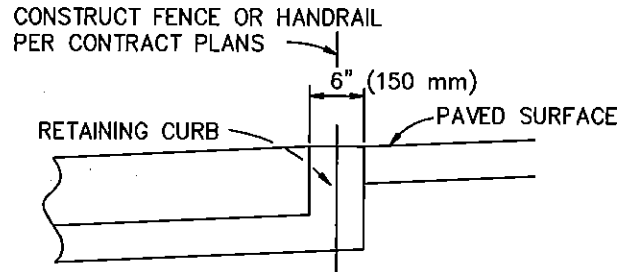
GROOVING DETAIL



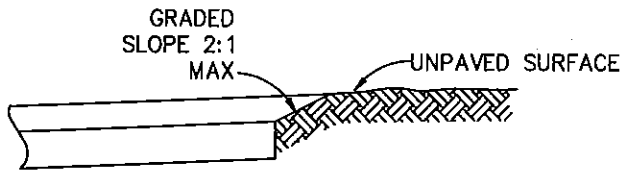
DETECTABLE WARNING DETAIL



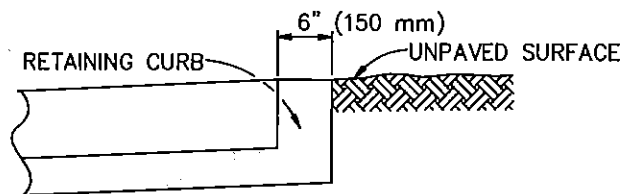
DETAIL A



DETAIL B



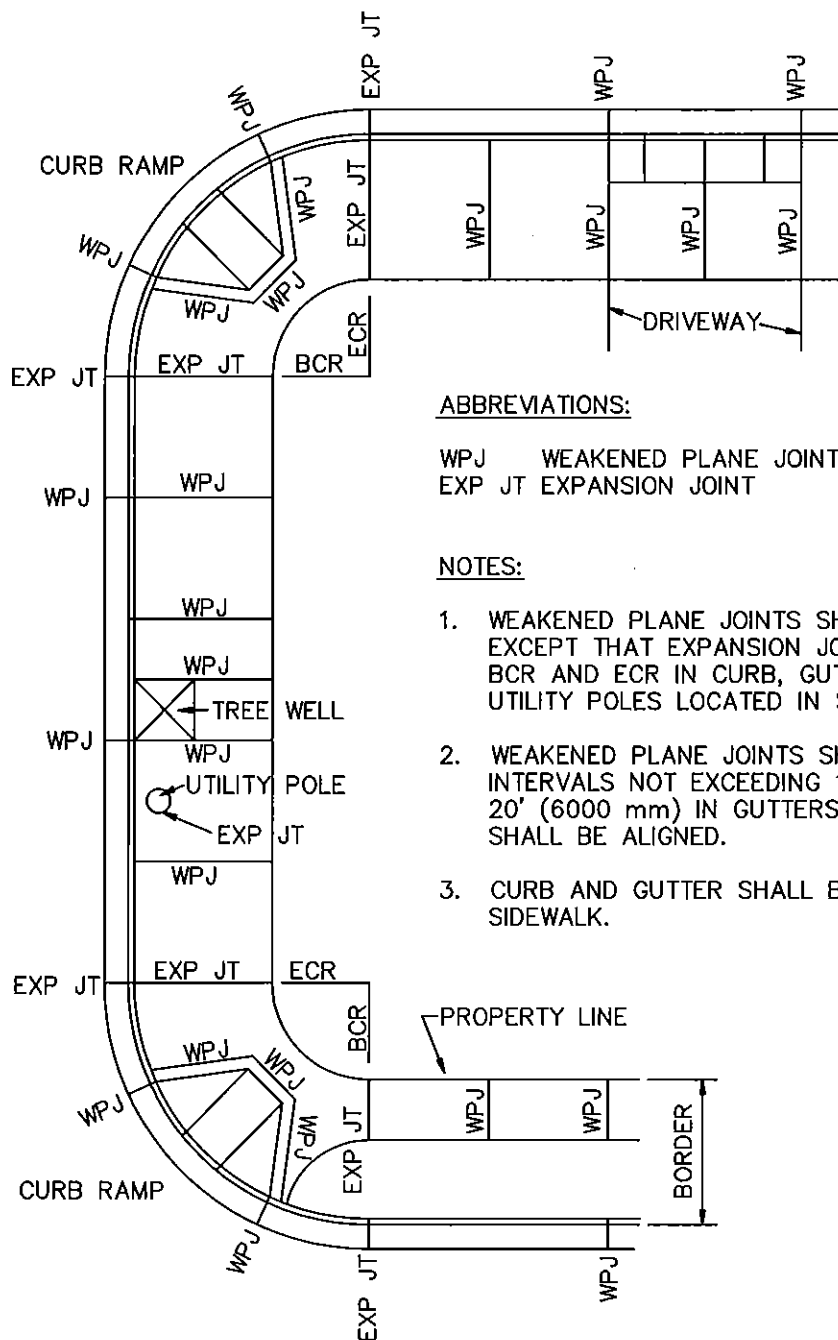
DETAIL C



DETAIL D

GENERAL NOTES:

1. CONCRETE SHALL BE CLASS 520-C-2500 (310-C-17) CONFORMING TO SSPWC 201-1.1.2 AND SHALL BE 4" (100 mm) THICK.
2. THE RAMP SHALL HAVE A 12" (305 mm) WIDE BORDER WITH 1/4" (6 mm) GROOVES APPROXIMATELY 3/4" (19 mm) OC. SEE GROOVING DETAIL.
3. THE RAMP SURFACE SHALL HAVE A TRANSVERSE BROOMED SURFACE TEXTURE CONFORMING TO SSPWC 303-1.9.
4. USE DETAIL "A" OR "B" IF EXISTING SURFACE BEHIND LANDING IS PAVED.
5. USE DETAIL "C" OR "D" IF EXISTING SURFACE BEHIND LANDING IS UNPAVED.
6. R = 3' (900 mm) UNLESS OTHERWISE SHOWN ON PLAN.
7. ANGLE = $\Delta/2$ UNLESS OTHERWISE SHOWN ON PLAN.
8. CONSTRUCT DETECTABLE WARNING SURFACE PER DETAIL THIS SHEET. MATERIALS SHALL BE PER CONTRACT DOCUMENTS.



ABBREVIATIONS:

WPJ WEAKENED PLANE JOINT BCR BEGINNING OF CURB RETURN
EXP JT EXPANSION JOINT ECR END OF CURB RETURN

NOTES:

1. WEAKENED PLANE JOINTS SHALL BE USED FOR ALL JOINTS, EXCEPT THAT EXPANSION JOINTS SHALL BE PLACED AT THE BCR AND ECR IN CURB, GUTTER AND SIDEWALK, AND AROUND UTILITY POLES LOCATED IN SIDEWALK AREAS.
2. WEAKENED PLANE JOINTS SHALL BE CONSTRUCTED AT REGULAR INTERVALS NOT EXCEEDING 10' (3000 mm) IN WALKS AND 20' (6000 mm) IN GUTTERS. JOINTS IN CURB AND WALK SHALL BE ALIGNED.
3. CURB AND GUTTER SHALL BE CONSTRUCTED SEPARATELY FROM SIDEWALK.

STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION

PROMULGATED BY THE
PUBLIC WORKS STANDARDS INC.
GREENBOOK COMMITTEE
1984
REV. 1996, 2009

CURB AND SIDEWALK JOINTS

USE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

STANDARD PLAN

112-2

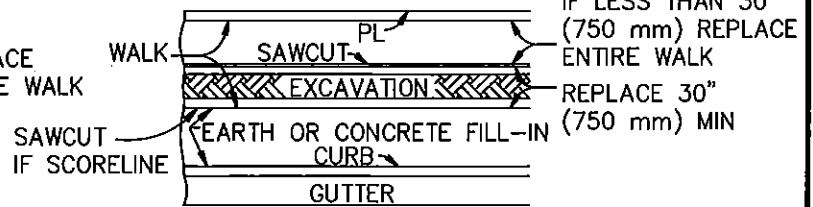
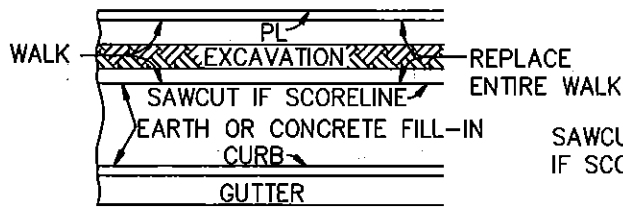
SHEET 1 OF 1

WALK OR FILL-IN REPLACEMENT FOR EXCAVATIONS MADE PARALLEL TO CURB OR PROPERTY LINE

WALK ADJACENT TO PROPERTY LINE

WALK LESS THAN 5' (1500 mm) WIDE

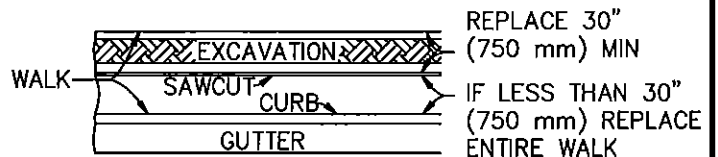
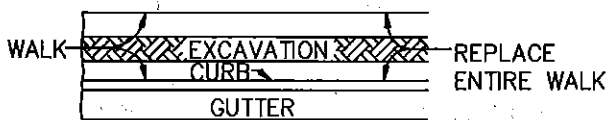
WALK 5' (1500 mm) WIDE OR MORE



WALK ADJACENT TO CURB

WALK LESS THAN 5' (1500 mm) WIDE

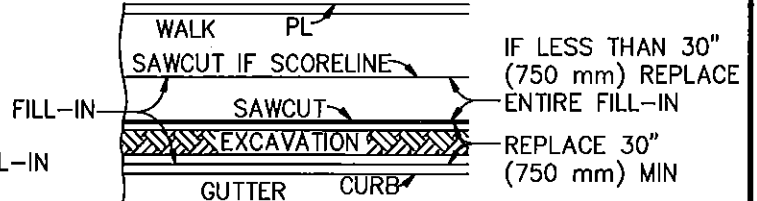
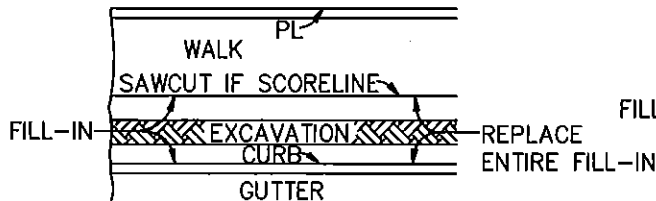
WALK 5' (1500 mm) WIDE OR MORE



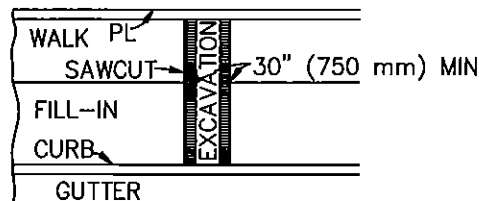
FILL-IN REPLACEMENT

FILL-IN LESS THAN 5' (1500 mm) WIDE

FILL-IN 5' (1500 mm) WIDE OR MORE



WALK OR FILL-IN REPLACEMENT FOR EXCAVATIONS MADE NORMAL TO CURB OR PROPERTY LINE



THESE REQUIREMENTS ALSO APPLY TO ENDS OF PARALLEL EXCAVATIONS.

IF AN EXCAVATION FALLS WITHIN 30" (750 mm) OF AN EXPANSION JOINT, CONSTRUCTION JOINT, WEAKENED PLANE JOINT, OR EDGE, THE CONCRETE SHALL BE REMOVED AND REPLACED TO THE JOINT OR EDGE.

IF AN EXCAVATION FALLS WITHIN 12" (300 mm) OF A SCORELINE, THE CONCRETE SHALL BE REMOVED AND REPLACED TO THE SCORELINE. THE SCORELINE SHALL BE SAWCUT BEFORE CONCRETE REMOVAL.

THE MINIMUM LENGTH OF REPLACEMENT IN BOTH CASES SHALL BE 30" (750 mm).

STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION

PROMULGATED BY THE
PUBLIC WORKS STANDARDS INC.
GREENBOOK COMMITTEE
1993
REV. 1998, 2009

SIDEWALK & DRIVEWAY REPLACEMENT

USE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

STANDARD PLAN

113-2

SHEET 1 OF 2

NOTES

1. CONCRETE WALK, FILL-IN AND DRIVEWAYS REMOVED IN CONNECTION WITH CONSTRUCTION SHALL BE REPLACED TO NEATLY SAWED EDGES. ALL CUTS SHALL BE PARALLEL TO OR PERPENDICULAR TO THE CURB; ON CURVES, THE CUT SHALL BE RADIAL TO THE CURB.
2. DRIVEWAY APRONS IN WHICH THE "W" DISTANCE IS LESS THAN 11' (3300 mm) SHALL BE REPLACED IN THEIR ENTIRETY IF CUT IN ANY AREA.
3. DRIVEWAY APRONS IN WHICH THE "W" DISTANCE IS 11' (3300 mm) OR MORE MAY BE CUT WITHIN THE "W" SECTION. THE MINIMUM REPLACEMENT SHALL BE 30" (750 mm) IN LENGTH. THE MINIMUM DISTANCE ALLOWED BETWEEN SUCH CUTS SHALL BE 14' (4200 mm).
4. DRIVEWAY APRONS IN WHICH THE "W" DISTANCE IS 11' (3300 mm) OR MORE MAY BE CUT IN THE "X" OR "R" SECTION. REPLACEMENT SHALL BE THE ENTIRE "X" OR "R" SECTION.
5. DRIVEWAY APRONS SHALL BE REPLACED FROM THE BACK OF THE CURB TO THE FRONT EDGE OF THE WALK, EXCEPT, WHERE WALK IS ADJACENT TO CURB, REPLACEMENT SHALL BE FROM BACK OF CURB TO BACK OF WALK.
6. WALK PORTIONS OF DRIVEWAYS SHALL BE REPLACED AS SHOWN ABOVE FOR EXCAVATIONS MADE PARALLEL OR NORMAL TO CURB.
7. REPLACEMENT OF THE "X" OR "R" SECTION SHALL MATCH EXISTING CONSTRUCTION.

STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION

SIDEWALK & DRIVEWAY REPLACEMENT

STANDARD PLAN

113-2

SHEET 2 OF 2

$$\frac{A1-6(150)}{A1-8(200)}$$

A2-6(150) AND A2-8(200)

A3-6(150) AND A3-8(200)

D1-6(150) AND
D1-8(200)

NOTES:

1. THE LAST NUMBER IN THE DESIGNATION IS THE CURB FACE (CF) HEIGHT, INCHES (mm).
2. GUTTER WIDTH, W, IS 24" (600 mm) UNLESS OTHERWISE SPECIFIED.
3. TYPES A1, A2, A3 AND C1 SHALL BE CONSTRUCTED FROM PCC.
4. TYPE D1 CURB SHALL BE CONSTRUCTED FROM ASPHALT CONCRETE.
5. TYPE C1 CURB SHALL BE ANCHORED WITH STEEL DOWELS AS SHOWN OR WITH AN EPOXY APPROVED BY THE ENGINEER.
6. ALL EXPOSED CORNERS ON PCC CURBS AND GUTTERS SHALL BE ROUNDED WITH A 1/2" (15 mm) RADIUS.

C1-6(150) AND C1-8(200)

STANDARD PLAN FOR PUBLIC WORKS CONSTRUCTION

PROMULGATED BY THE
PUBLIC WORKS STANDARDS INC.
GREENBOOK COMMITTEE
1984
REV. 1998, 2009

CURB AND GUTTER – BARRIER

USE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

STANDARD PLAN

120-2

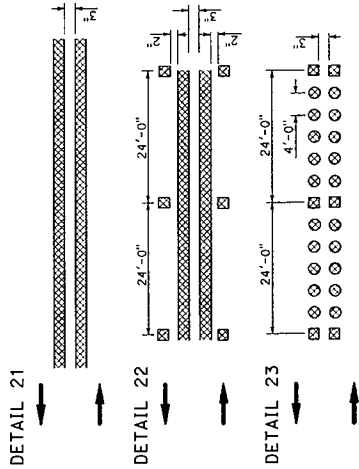
SHEET 1 OF 1

APPENDIX IV

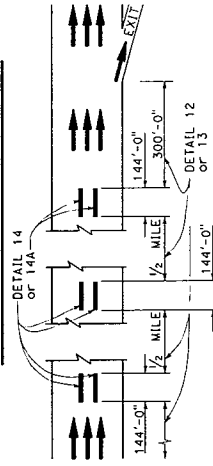
CALTRANS STANDARD PLANS

PROJECT NO.	ROUTE	POST MILES	SHEET NO.	TOTAL SHEETS
REGISTERED CIVIL ENGINEER Robert L. McQuinn MAY 20, 2011 PLANS APPROVED DATE THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS THE ACCURACY OF THE INFORMATION CONTAINED HEREIN IS THE RESPONSIBILITY OF THE ENGINEER (CONSULT THIS PLAN SHEET)				

NO PASSING ZONES-TWO DIRECTION

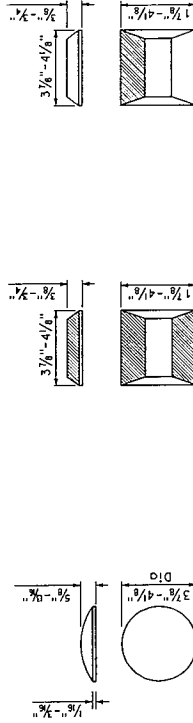


**TYPICAL LANE LINE DELINEATION
IN ADVANCE OF EXIT RAMP**



NOTE:
Detail 14 is to be used in combination with Detail 13. Detail 14A is to be used in combination with Detail 12.

MARKER DETAILS



TYPE A AND TYPE AY

TYPE C AND TYPE D

TYPE G AND TYPE H

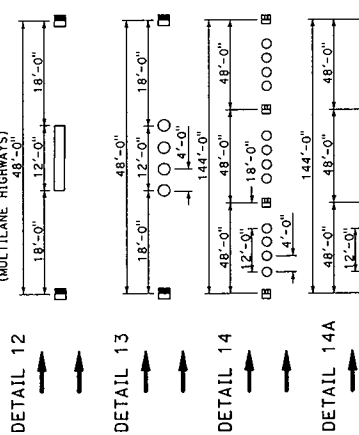
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**PAVEMENT MARKERS
AND TRAFFIC LINES
TYPICAL DETAILS**

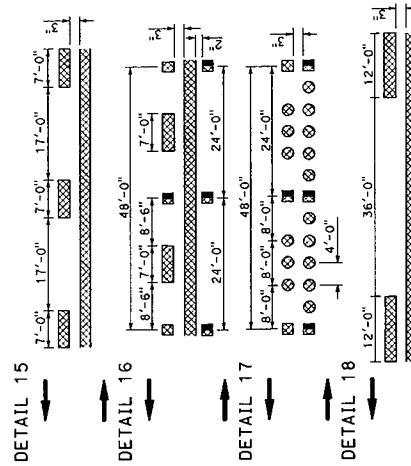
NO SCALE

A20A

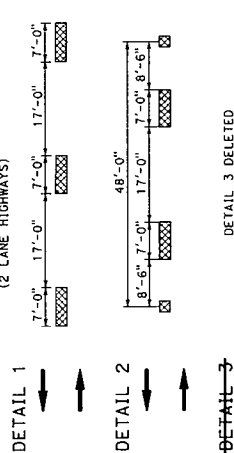
LANELINES (Cont)



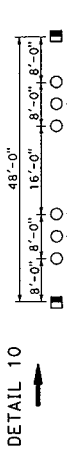
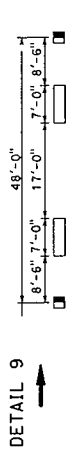
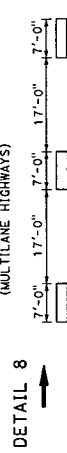
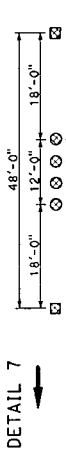
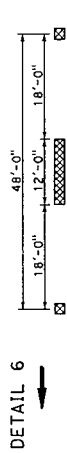
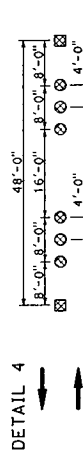
NO PASSING ZONES-ONE DIRECTION



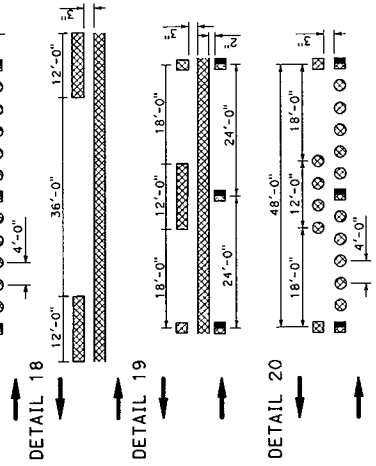
**CENTERLINES
(2 LANE HIGHWAYS)**

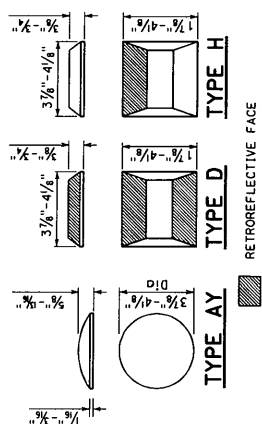
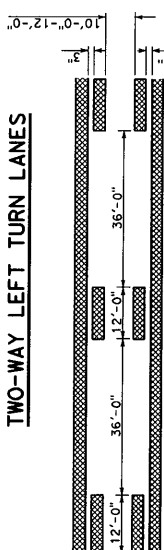
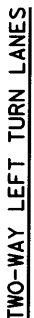
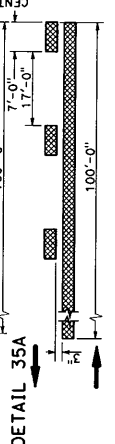
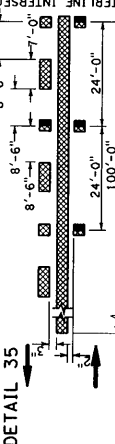
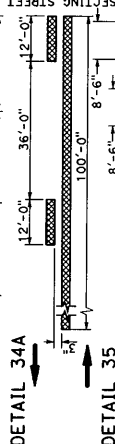
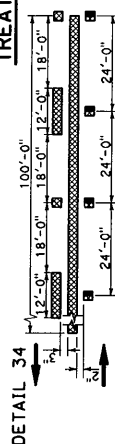
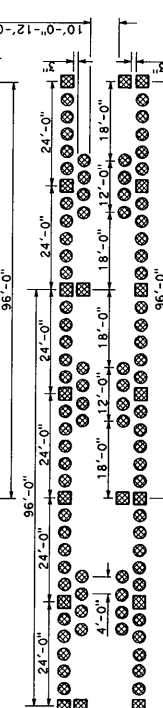
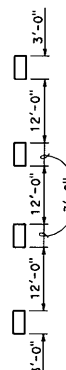
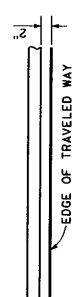
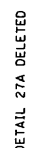
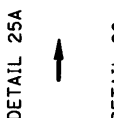
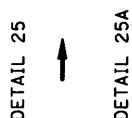
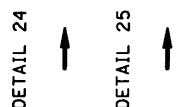
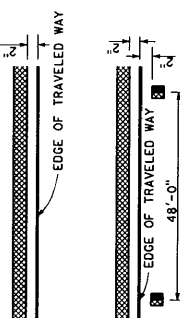
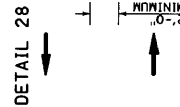
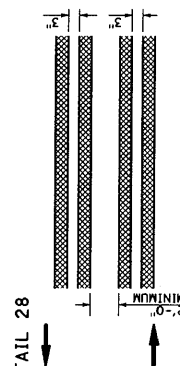
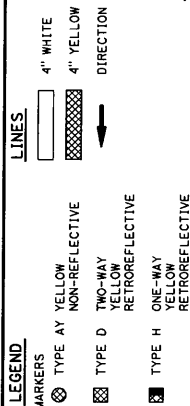


DETAIL 3 DELETED



**LANELINES
(MULTILANE HIGHWAYS)**





STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKERS AND TRAFFIC LINES TYPICAL DETAILS

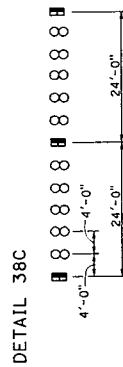
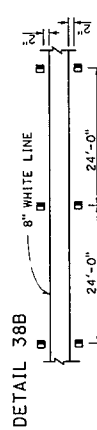
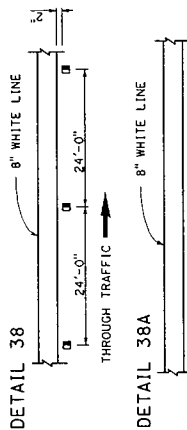
NO SCALE

A 20B

DIST.	COUNTY	ROUTE	PROJECT	SHEET NO.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER
 May 20, 2011
 THE STATE OF CALIFORNIA ON ITS OFFICERS
 OR AGENTS SHALL NOT BE RESPONSIBLE FOR
 THE CORRECTNESS OF THIS PLAN SHEET.

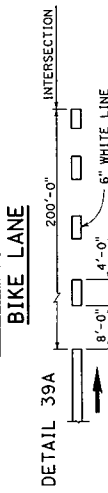
CHANNELIZING LINE



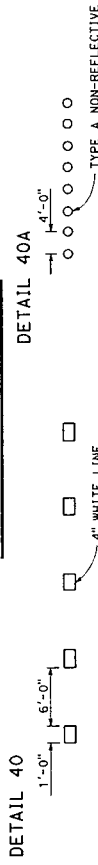
BIKE LANE LINE



INTERSECTION BIKE LANE



LANE LINE EXTENSIONS THROUGH INTERSECTIONS



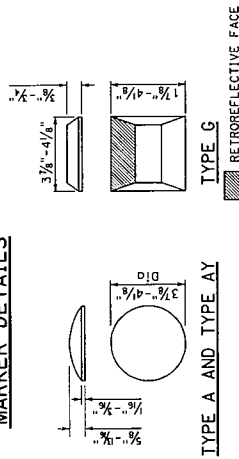
CENTER LINE EXTENSIONS THROUGH INTERSECTIONS



LEGEND MARKERS

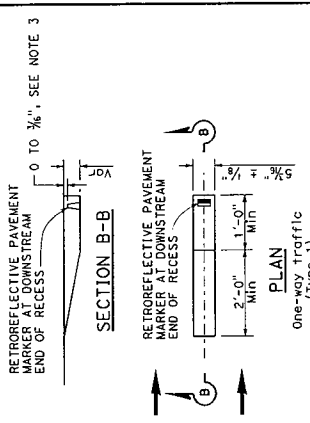
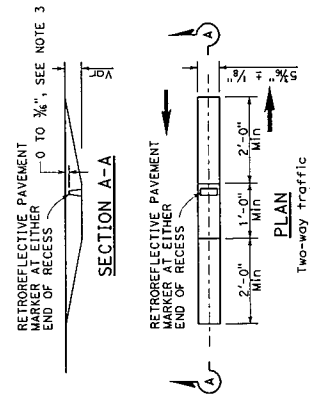
- TYPE A WHITE NON-REFLECTIVE
- ⊗ TYPE AY YELLOW NON-REFLECTIVE
- TYPE G ONE-WAY CLEAR RETROREFLECTIVE
- ▨ 4" YELLOW LINE
- DIRECTION OF TRAVEL

MARKER DETAILS

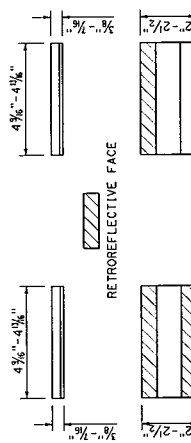


DETAIL FOR RECESSED THERMOPLASTIC TRAFFIC STRIPE

- RECESSED THERMOPLASTIC NOTES**
 A. See typical traffic line details for pavement marking patterns.
 B. The top of the thermoplastic installed in recessed pavement shall be 0 to 1/8" below the pavement surface.



RECESS-DETAIL FOR RETROREFLECTIVE PAVEMENT MARKER



- RECESSED MARKER NOTES:**
 1. See typical traffic line details for marker patterns and recessed pavement markers. Detail 14A requires a Type 2 recess.
 2. The retroreflecting down for recessed installations are not to be used for non-recessed installations.
 3. The top of pavement markers installed in recesses shall be 0 to 1/8" below the pavement surface.

RETROREFLECTIVE PAVEMENT MARKER FOR RECESSED INSTALLATION

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

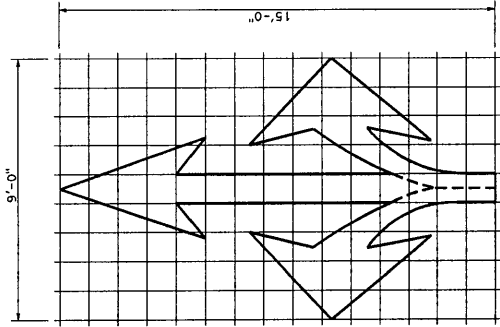
PAVEMENT MARKERS AND TRAFFIC LINES TYPICAL DETAILS

NO SCALE

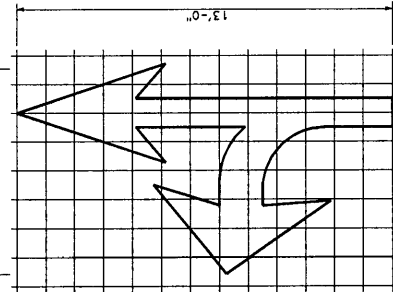
A20D

Dist	COUNTY	ROUTE	POST MILES	TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
REGISTERED CIVIL ENGINEER <i>Robert L. McQuinn</i> APRIL 20, 2012 PLANS APPROVAL DATE THE STATE OF CALIFORNIA OR ITS OFFICERS HAVE REVIEWED THESE PLANS AND THE ACCURACY OF COMPLETENESS OF TECHNICAL COPIES OF THIS PLAN SHEET.						

TO ACCOMPANY PLANS DATED _____

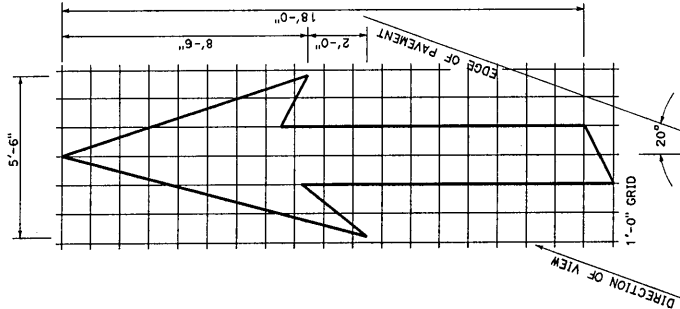


TYPE VIII ARROW
A=36 ft±

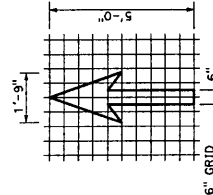


TYPE VII (L) ARROW
A=27 ft±

(For Type VIII (R) arrow, use mirror image)

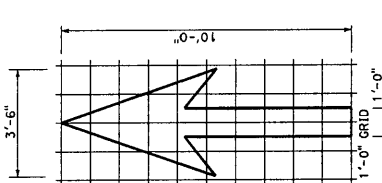


TYPE VI ARROW
A=42 ft±
Right lane drop arrow
(For left lane, use mirror image)

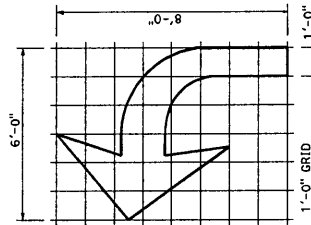


A=33 ft±

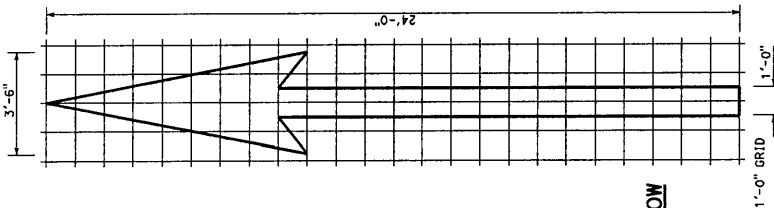
BIKE LANE ARROW



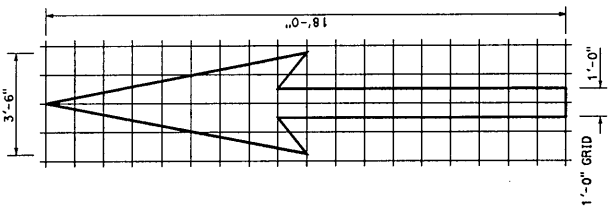
TYPE I 10'-0" ARROW
A=14 ft±



TYPE IV (L) ARROW
A=15 ft±
(For Type IV (R) arrow, use mirror image)



TYPE I 24'-0" ARROW
A=31 ft±



TYPE I 18'-0" ARROW
A=25 ft±

NOTE:
Minor variations in dimensions may be accepted by the Engineer.

TYPE V ARROW
A=33 ft±

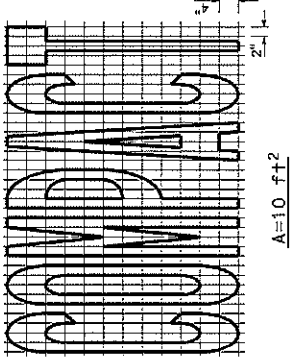
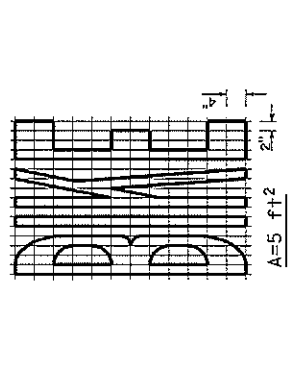
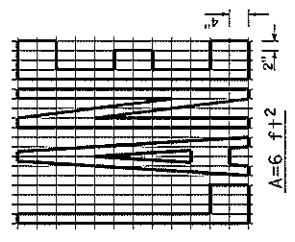
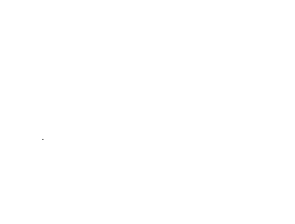
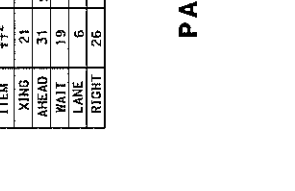
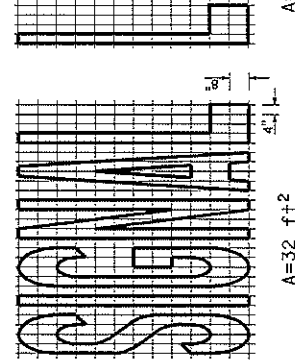
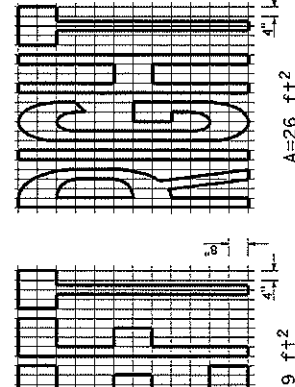
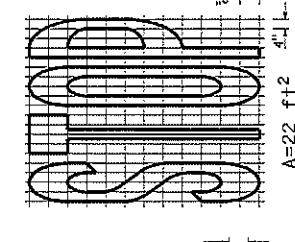
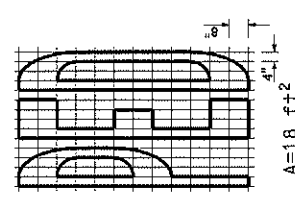
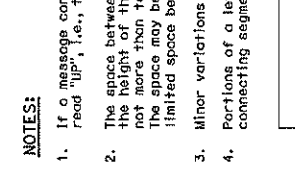
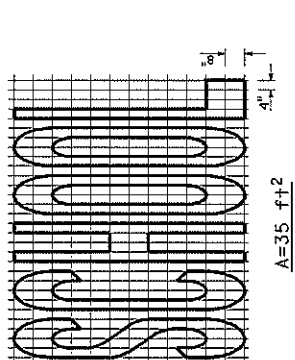
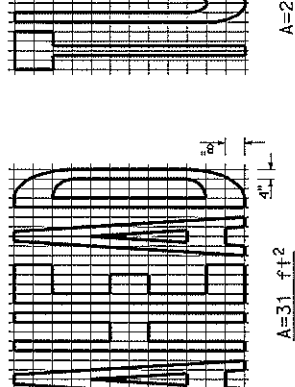
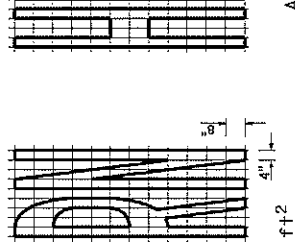
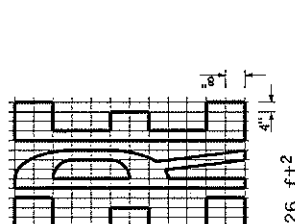
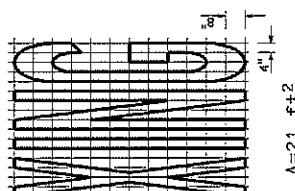
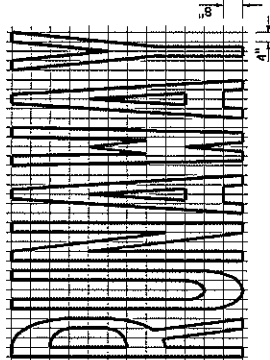
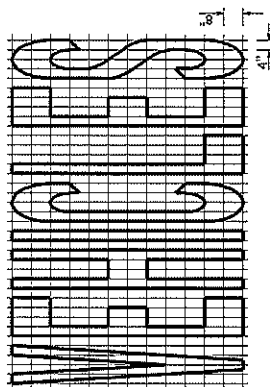
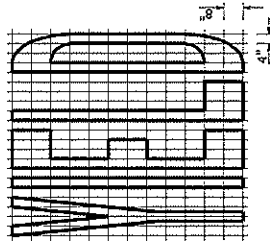
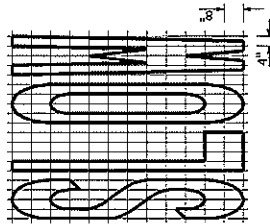
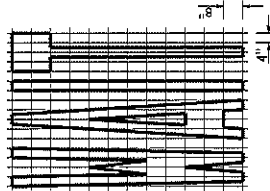
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**PAVEMENT MARKINGS
ARROWS**
NO SCALE

RSP A24A DATED APRIL 20, 2012 SUPERSEDES STANDARD PLAN A24A
DATED MAY 20, 2011 - PAGE 13 OF THE STANDARD PLANS BOOK DATED 2010.

DIST.	COUNTY	ROUTE	SHEET NO.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER <i>Paul M. McLaughlin</i> No. 0000010 Exp. 3-31-13 STATE OF CALIF.	
PLAN APPROVAL DATE May 20, 2011	SCALE 1" = 10'-0"

THIS PLAN IS TO BE USED FOR THE DESIGN OF PAVEMENT MARKINGS. IT IS THE RESPONSIBILITY OF THE ENGINEER TO VERIFY THE ACCURACY OF THE DIMENSIONS OF THE MARKINGS AND TO PROVIDE THE NECESSARY DIMENSIONS FOR THE MARKINGS TO BE PLACED ON THE PAVEMENT.



NOTES:

1. If a message consists of more than one word, it should read "up", i.e., the first word should be nearest the driver.
2. The space between words should be at least four times the height of the characters for low speed roads, but not more than ten times the height of the characters. The space may be reduced appropriately where there is limited space because of local conditions.
3. Minor variations in dimensions may be accepted by the Engineer.
4. Portions of a letter, number or symbol may be separated by connecting segments not to exceed 2" in width.

WORD MARKINGS					
ITEM	ft+2	ITEM	ft+2	ITEM	ft+2
XING	21	YIELD	24	BIKE	5
AHEAD	31	SCHOOL	35	SLOW	22
WAIT	19	SIGNAL	32	STOP	23
LANE	6	TURN	24	LEFT	19
RIGHT	26	HERE	26	VEHICLES	42

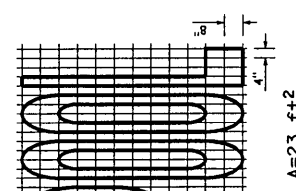
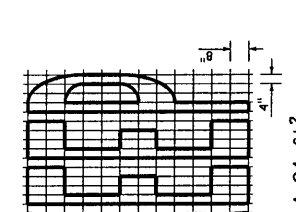
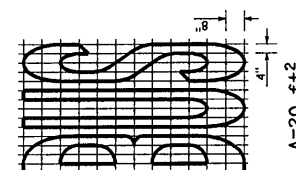
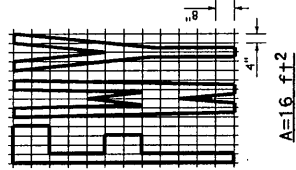
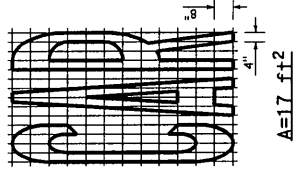
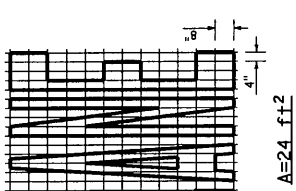
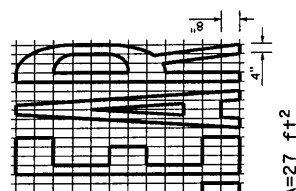
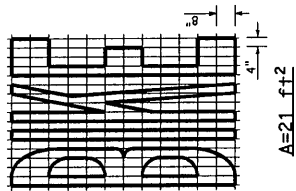
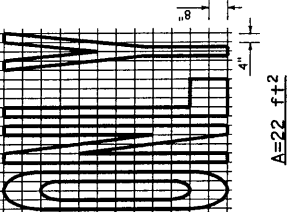
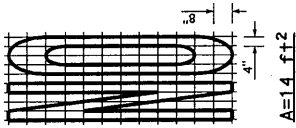
STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
PAVEMENT MARKINGS
WORDS
 NO SCALE

A24D

DIS. COUNTY	ROUTE	POST MILES	SHEET TOTAL
		TOTAL PROJECT	NO. SHEETS

JULY 20, 2012 PLANS APPROVAL DATE THE STATE OF CALIFORNIA ON THE OFFICE OF THE REGISTERED CIVIL ENGINEER THE ACTIVITY ON COMPLETION OF THE PLAN SHEET	

TO ACCOMPANY PLANS DATED _____



WORD MARKINGS			
ITEM	f+2	ITEM	f+2
LANE	24	NO	14
POOL	23	BIKE	21
CAR	17	BUS	20
CLEAR	27	ONLY	22
KEEP	24	FWY	16

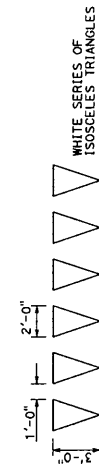
NOTES:

1. If a message consists of more than one word, it should read "up", i.e., the first word should be nearest the driver.
2. The space between words should be at least four times the height of the characters for low speed roads, but not more than ten times the height of the characters. The space may be reduced appropriately where there is limited space because of local conditions.
3. Minor variations in dimensions may be accepted by the Engineer.
4. Portions of a letter, number or symbol may be separated by connecting segments not to exceed 2" in width.
5. The words "NO PARKING" pavement marking is to be used for parking facilities. For typical locations of markings, see Standard Plans A90A and A90B.
6. The words "NO PARKING" shall be painted in white letters no less than 1'-0" high on a contrasting background and located so that it is visible to traffic enforcement officials.

1'-0" WHITE LINE

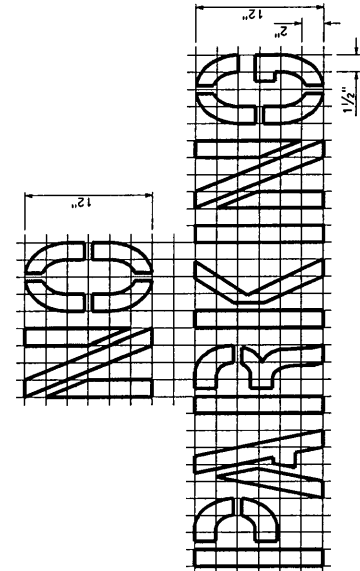


LIMIT LINE (STOP LINE)



DIRECTION OF TRAVEL

YIELD LINE

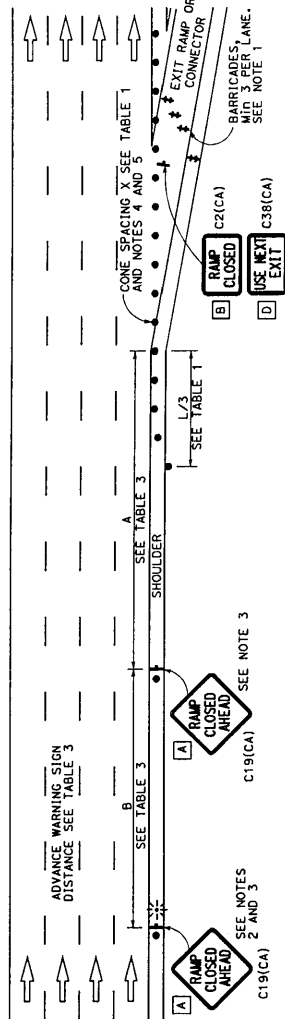


A=2 ft+2
See Notes 6 and 7

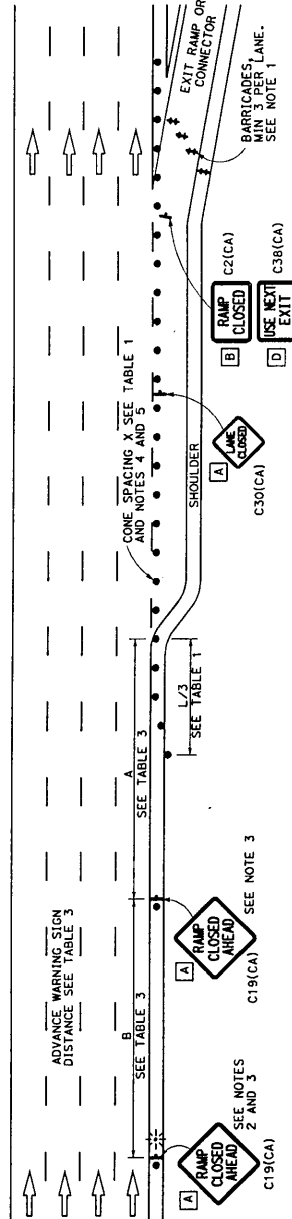
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
PAVEMENT MARKINGS
WORDS, LIMIT AND YIELD LINES
NO SCALE

RSP A24E DATED JULY 20, 2012, SUPERSEDES STANDARD PLAN A24E
DATED MAY 20, 2011 - PAGE 17 OF THE STANDARD PLANS BOOK DATED 2010.

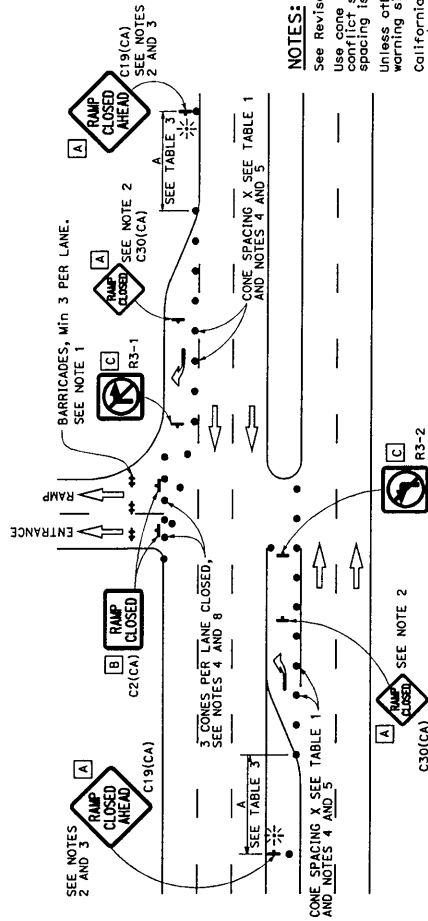
TYPICAL RAMP CLOSURES



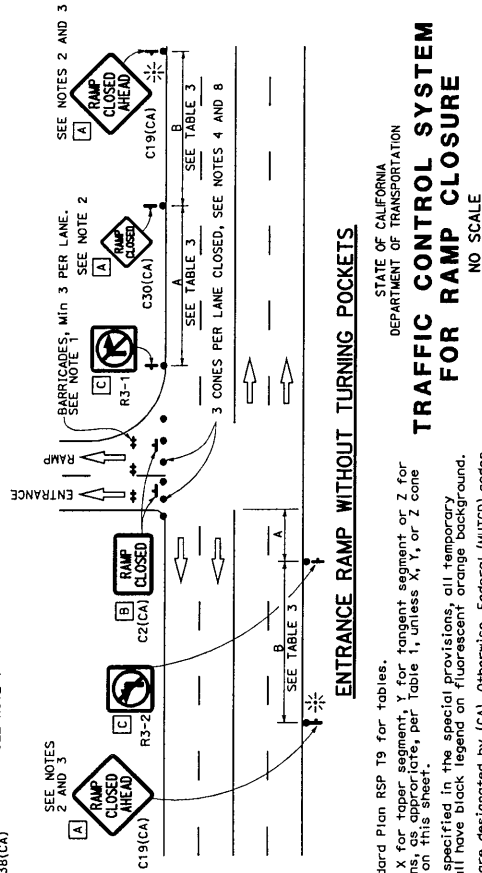
EXIT RAMP OR CONNECTOR



EXIT RAMP OR CONNECTOR WITH ADDITIONAL LANE



ENTRANCE RAMP WITH TURNING POCKETS



NOTES:

See Revised Standard Plan RSP T9 for tables.
Use cone spacing X for taper segment, Y for tangent segment or Z for 3 cones per lane closed, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.
Unless otherwise specified in the special provisions, all temporary warning signs shall have black legend on fluorescent orange background. California codes are designated by (CA). Otherwise, Federal (MUTCD) codes are shown.

SIGN PANEL SIZE (Min)

- A 48" x 48"
- B 48" x 30"
- C 36" x 36"
- D 48" x 36"

LEGEND

- TRAFFIC CONE
- † TEMPORARY TRAFFIC CONTROL SIGN
- ‡ BARRICADES
- ✱ PORTABLE FLASHING BEACON

NOTES:

- Barricades shall be Type I, II, or III for closures lasting one week or less and Type IV for closures lasting longer than one week.
- In addition to placing the C19(CA) "RAMP CLOSED AHEAD" and C30(CA) "RAMP CLOSED" signs, advance warning signs shall be placed on the ramp. The word "CLOSED" may be mounted on the sign. The letter size on the overlay shall be the same as the guide sign.
- Each advance C19(CA) "RAMP CLOSED AHEAD" sign shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. A flashing beacon shall be placed on top of the first C19(CA) sign during hours of darkness.
- All cones used for ramp closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
- Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used instead of cones for daytime ramp closures only.
- At least one person shall be assigned to provide full time maintenance of traffic control devices, unless otherwise directed by the Engineer.
- The existing "EXIT" signs shall be covered during ramp closures.
- A minimum of 3 cones shall be placed transversely across each closed lane and shoulder.

TO ACCOMPANY PLANS DATED _____

SHEET NO.	COUNTY	ROUTE	POST MILES	TOTAL SHEETS
REGISTERED CIVIL ENGINEER APR 11, 2013 THE STATE OF CALIFORNIA PLANS APPROVAL DATE APR 11, 2013 THE STATE OF CALIFORNIA PLANS APPROVAL DATE APR 11, 2013 THE STATE OF CALIFORNIA PLANS APPROVAL DATE APR 11, 2013				

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATIONTRAFFIC CONTROL SYSTEM
FOR RAMP CLOSURE
NO SCALE

RSP T14 DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T14
DATED MAY 20, 2011 - PAGE 242 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T14

Dist	County	ROUTE	POST MILES	SHEET	TOTAL
PROJECT			NO. SHEETS		
JULY 19, 2013 PLANS APPROVAL DATE THE STATE OF CALIFORNIA OR ITS OFFICERS IN ANY MANNER GUARANTEE OR WARRANT THE ACCURACY OR COMPLETENESS OF ANY PORTION OF THIS PLAN SHEET.					

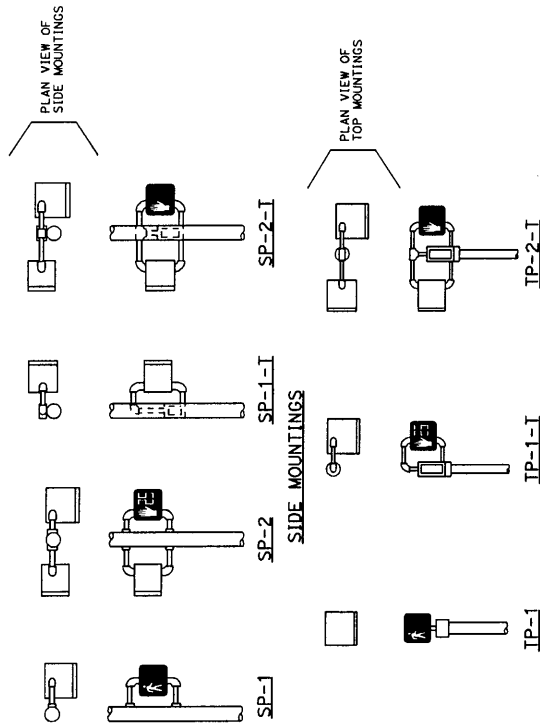
TO ACCOMPANY PLANS DATED _____

NOTES:

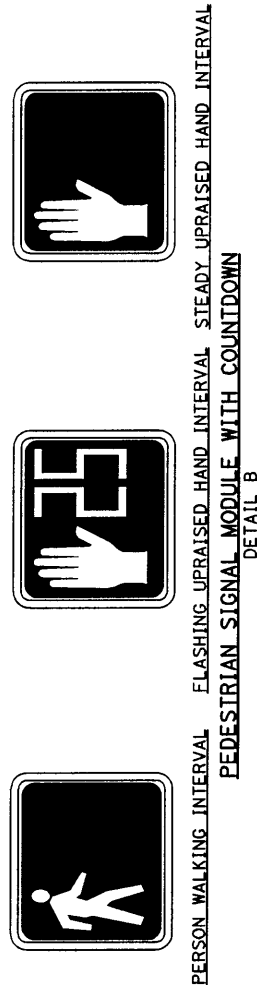
1. Mounting shall be oriented to provide maximum horizontal clearance to adjacent roadway.
2. Bracket arms shall be long enough to permit proper alignment of signals.
3. See Standard Plan ES-4D for attachment fittings details.

ABBREVIATIONS:

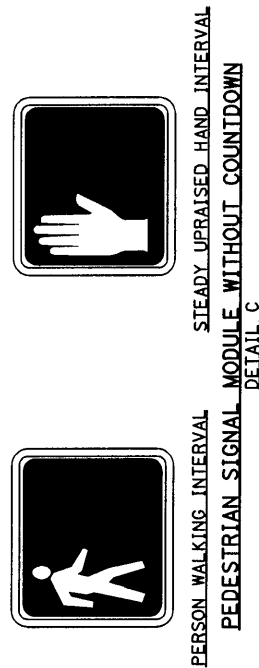
- 1, 2 NUMBER OF SIGNAL FACES
 SP SIDE MOUNTED PEDESTRIAN SIGNAL
 T TERMINAL COMPARTMENT
 TP TOP MOUNTED PEDESTRIAN SIGNAL



**PEDESTRIAN SIGNALS AND MOUNTINGS
DETAIL A**



**PEDESTRIAN SIGNAL MODULE WITH COUNTDOWN
DETAIL B**



**PEDESTRIAN SIGNAL MODULE WITHOUT COUNTDOWN
DETAIL C**



**RAMP METERING SIGN
DETAIL D**

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**ELECTRICAL SYSTEMS
 (PEDESTRIAN SIGNAL AND
 RAMP METERING SIGN)**

NO SCALE

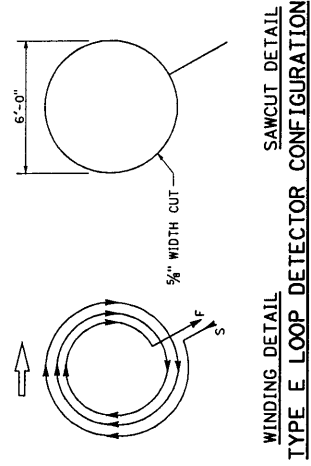
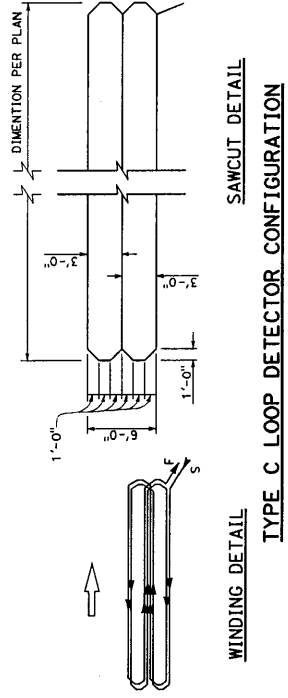
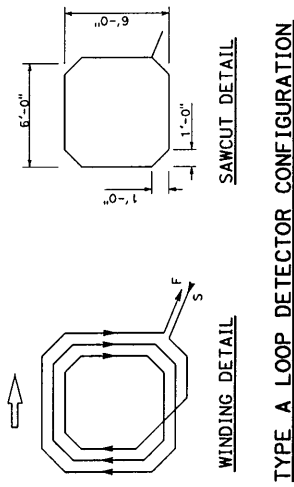
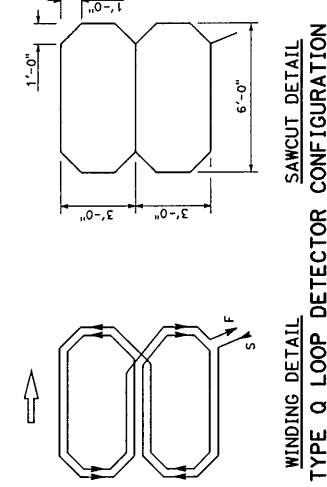
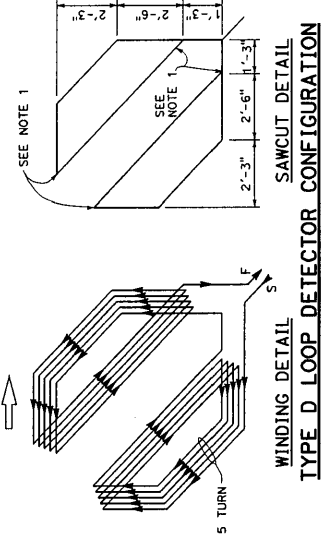
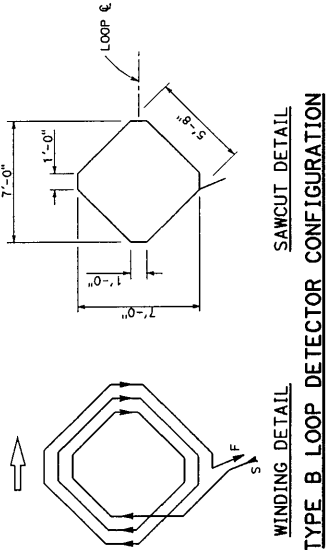
RSP ES-4B DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN ES-4B
 DATED MAY 20, 2011 - PAGE 444 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-4B

CITY	COUNTY	ROUTE	POST MILES	TOTAL SHEETS

REGISTERED ELECTRICAL ENGINEER <i>Thomas Gabriel</i> JULY 19, 2013 PLANS APPROVAL DATE THE STATE OF CALIFORNIA OR ITS OFFICE OF INDUSTRIAL RELATIONS HAS REVIEWED THESE PLANS FOR ACCURACY AND COMPLETENESS OF SEAMLESS COPIES OF THIS PLAN SHEET.	PROFESSIONAL ENGINEER No. 41281 DATE OF EXPIRATION 12/31/2014
--	--

TO ACCOMPANY PLANS DATED _____



NOTES:

1. Round corners of acute angle sawcuts to prevent damage to conductors.
2. Typical distances separating loops from edge to edge is 10' for Type A, B, D and E installation in single lane.

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**ELECTRICAL SYSTEMS
 (DETECTORS)**

NO SCALE

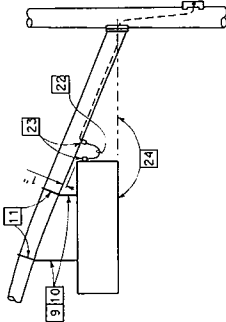
RSP ES-5B DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN ES-5B
 DATED MAY 20, 2011 - PAGE 449 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-5B

DETAIL A

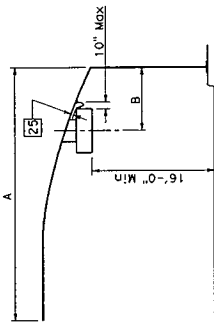
DIST.	COUNTY	ROUTE	PROJECT	SHEET NO.	TOTAL SHEETS
				ES-7P	1

REGISTERED CIVIL ENGINEER
 MAY 20, 2011
 THE STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 CONTRACT NO. 70-0000-01
 SHEET NO. 1 OF 1

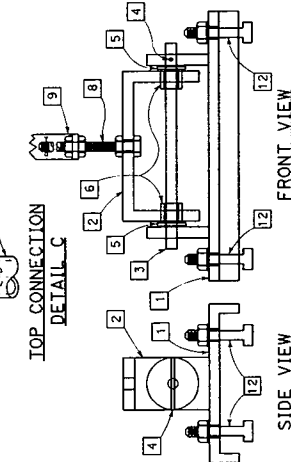


**SIGN MOUNTING
DETAIL H**

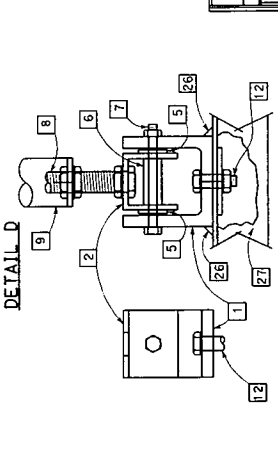
SIGN PLACEMENT	
A	B
PROJECTED LENGTH	6'-0" SIGN
25'-0"	7'-10" SIGN
30'-0"	9'-2" SIGN
35'-0"	10'-6" SIGN
40'-0"	11'-6" SIGN
45'-0"	12'-6" SIGN
50'-0"	13'-6" SIGN
55'-0"	
60'-0"	
65'-0"	



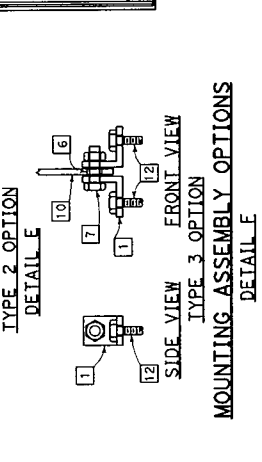
**SIGN PLACEMENT
DETAIL G**



**TOP CONNECTION
DETAIL C**



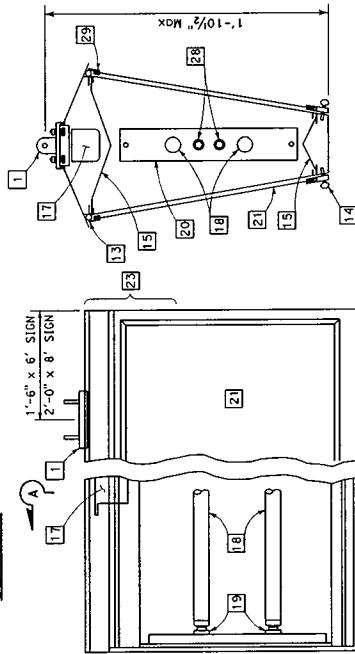
**SIDE VIEW
TYPE 1 OPTION
DETAIL D**



**SIDE VIEW
TYPE 2 OPTION
DETAIL E**

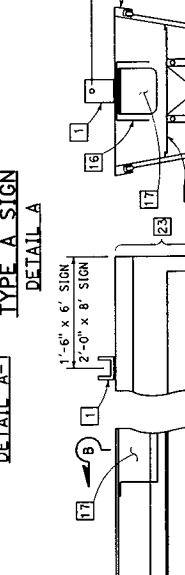


**SIDE VIEW
TYPE 3 OPTION
DETAIL F**



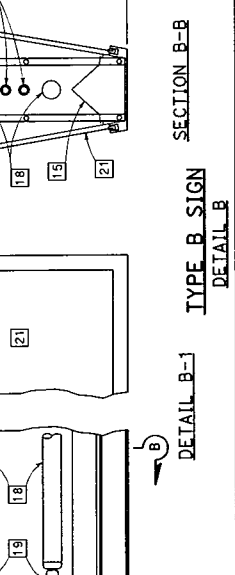
SECTION A-A

**TYPE A SIGN
DETAIL A**



SECTION B-B

**TYPE B SIGN
DETAIL B**



SECTION C-C

**TYPE C SIGN
DETAIL C**

- LEGEND:**
- 1 LOWER MOUNTING ASSEMBLY WITH GASKET.
 - 2 UPPER MOUNTING ASSEMBLY.
 - 3 ROD, 1/2" Ø, STAINLESS STEEL.
 - 4 LOCKING PIN, STEEL.
 - 5 FLAT WASHER, STAINLESS STEEL.
 - 6 BUSHING, BRONZE.
 - 7 BOLT, 1/2" Ø, STAINLESS STEEL, WITH SELF-LOCKING NUT.
 - 8 BOLT, 1/2" Ø, STAINLESS STEEL, WITH THREE NUTS, AND COTTER KEY. LENGTH AS REQUIRED FOR PROPER MOUNTING OF SIGN.
 - 9 BRACKET, 1/4" X 1/2" MINIMUM, LENGTH VARIABLE.
 - 10 BRACKET, 2-PIECE ADJUSTABLE, 1/4" X 1/2" MINIMUM, TWO 1/2" Ø HEXAGON HEAD BOLTS WITH NUTS AND LOCKWASHERS.
 - 11 3/4" X 0.020" MINIMUM ROUNDED EDGE STAINLESS STEEL STRAP WITH 2" LONG BEND UNDER BUCKLE. IF ATTACHING TO A MULTISIDED SECTION BEND UNDER SECTION SHALL BE LONG ENOUGH TO CONTACT AT LEAST 3 CORNERS.
 - 12 MOUNTING BOLT, 1/2" Ø MINIMUM, WITH NUT AND LOCKWASHER, OR SELF-LOCKING NUT AND COTTER KEY.
 - 13 CONTINUOUS HINGE.
 - 14 THUMB SCREW, 3/8" Ø MINIMUM TWO PER SIDE ON 4'-0" CENTERS.
 - 15 REFLECTOR, 0.040" MINIMUM THICKNESS.
 - 16 ALUMINUM STIFFENER.
 - 17 FLUORESCENT BALLAST (2 REQUIRED).
 - 18 LAMP, F72T12CW FOR 6'-0" SIGN F96T12CW FOR 8'-0" SIGN
 - 19 LAMP HOLDER.
 - 20 LAMP HOLDER TURRET.
 - 21 SIGN PANEL, 1'-3" MINIMUM HEIGHT. MESSAGE IS SHOWN ELSEWHERE.
 - 22 CORD, 18/3 TYPE SUT, CONTINUOUS FROM SIGN TERMINAL TO CLOSET HEAD FORM A 1'-0" DRIP LOOP BETWEEN SIGN AND SIGNAL MAST ARM.
 - 23 CORD CONNECTOR, 90° ANGLE CONNECTOR AT THE SIGNAL LOCATED IN UPPER 1/3 OF THE SIGNAL MAST ARM. DRILL AND TAP BOTTOM OF THE SIGNAL MAST ARM.
 - 24 ADJUST FIXTURE LEVEL NO LOWER THAN CENTER OF SIGNAL MAST ARM CONNECTION.
 - 25 APPROXIMATE CLEARANCE, 1".
 - 26 1/4" FILLET WELD, 1/4" LONG.
 - 27 SIGN FRAME.
 - 28 FUSE HOLDER AND FUSE.
 - 29 CLOSE CELL NEOPRENE GASKET (CONTINUOUS).
 - 30 STAINLESS STEEL STRAP BUCKLE.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**ELECTRICAL SYSTEMS
(INTERNALLY ILLUMINATED
STREET NAME SIGN)**

NO SCALE

ES-7P

Return to Table of Contents

TO ACCOMPANY PLANS DATED

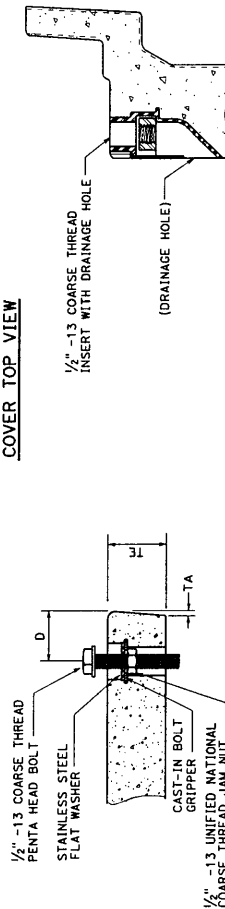
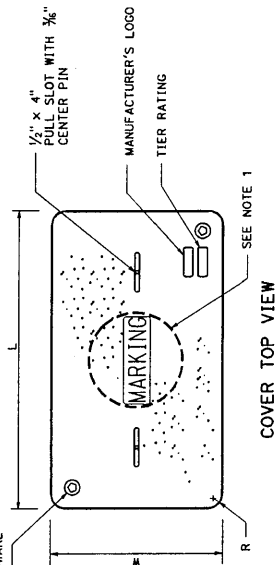
1. Pull box covers shall be marked as follows: "SERVICE" Service circuits between service point and service disconnect; "SPRINKLER-CONTROL" sprinkler control circuits, 50 v or less; "CALTANS" on all pull boxes, except pull boxes marked "SPRINKLER-CONTROL"; and "TELEPHONE" Telephone service;

- A) No. 3½ pull box.
- 1) "SIGNAL" - Traffic signal circuits with or without lighting or sign lighting circuits.
- 2) "LIGHTING" - Lighting or sign lighting circuits where voltage is under 600 V.
- B) No. 5, 6, 9 or 9A pull box.
- 1) "TRAFFIC SIGNAL" - Traffic signal circuits with or without lighting or sign lighting circuits.
- 2) "LIGHTING" - Lighting or sign lighting circuits where voltage is under 600 V.
- 3) "LIGHTING-HIGH VOLTAGE" - Lighting or sign lighting circuits where voltage is above 600 V.
- 4) "IRRIGATION" - Circuits to irrigation controller 120 V or more.
- 5) "RAMP METER" - Ramp meter circuits.
- 6) "COUNT STATION" - Count or speed monitor circuits.
- 7) "COMMUNICATIONS" - Communication circuits.
- 8) "TOS COMMUNICATIONS" - TOS communication line.
- 9) "TOS POWER" - TOS power.
- 10) "TDC POWER" - Telephone demarcation cabinet power.
- 11) "CCTV" - Closed circuit television circuits.
- 12) "TMS" - Traffic monitoring station circuits.
- 13) "CMS" - Changeable message sign circuits.
- 14) "HAW" - Highway advisory radio circuits.
- 15) "BOOSTER PUMP" - Booster pump circuits.

2. The nominal dimensions of the opening in which the cover sets shall be the same as the cover dimensions except the length and width dimensions shall be $\frac{1}{8}$ greater.
3. Covers and boxes shall be interchangeable with California standard male and female gages. When interchanged with a standard male or female gage, the top surfaces shall be flush within $\frac{1}{16}$ ". Top outside radius of covers and pull boxes shall have a $\frac{1}{16}$ " radius.
4. Pull box extension may be another pull box as long as the bottom edge of the pull box can fit into the cover opening.
5. All dimensions for the cover for non-traffic pull box are nominal values.



1/2" STAINLESS STEEL HARDWARE WITH
RECESS IN COVER FOR HARDWARE



TYPICAL THREADED INSERT
OR SIMILAR

TYPICAL COVER CAPTIVE BOLT
OR SIMILAR

DIMENSION TABLE										
PULL BOX				COVER						
PULL BOX	MINIMUM DEPTH BOX	MINIMUM DEPTH EXTENSION	MAXIMUM WEIGHT	L	W	R	TE	TA	D	MAXIMUM WEIGHT
No. 3½	12"	N/A	40 lb	1' - 3¾"	10½"	1½"	2"	⅞"	1¾"	30 lb
No. 5	12"	10"	55 lb	1' - 11¼"	1' - 1¾"	1½"	2"	⅞"	1¾"	60 lb
No. 6	12"	10"	70 lb	2' - 6¼"	1' - 5/8"	1½"	2"	⅞"	2"	85 lb

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**ELECTRICAL SYSTEMS
(NON-TRAFFIC PULL BOX)**

NO SCALE

RSP ES-8A DATED JULY 19, 2013 SUPERSEDES RSP ES-8A DATED JANUARY 20, 2012 THAT SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISÉ STANDARD PLAN RSP ES-8A

APPENDIX V

CONSTRUCTION & DEMOLITION WASTE MANAGEMENT PLAN (WMP)

Building Permit Number: _____

CITY OF TORRANCE

Construction & Demolition Waste Management Plan (WMP)

**THE REQUIREMENT IS TO REUSE OR RECYCLE AT LEAST 50% OF PROJECT WASTE
AND 100% OF EXCAVATED SOIL AND LAND-CLEARING DEBRIS**

- 1) As part of your application, you must complete the front and back of this page and the "estimate" or left side of the table on the backside of this page to the best of your ability, indicating that you will recycle at least 50% of the waste from the project and 100% of excavated soil and land-clearing debris.
- 2) As your project proceeds, collect and keep receipts of all waste disposed, recycled, reused or donated. Receipts must show material type, weight of material, how the material was treated and the facility used.
- 3) To final your project, you must then fill out the "actual" or right side of the table on the backside of this sheet, and submit it again with all the receipts to verify that at least 50% of the project's waste and 100% of excavated soil and land-clearing debris was diverted from the landfills.

Please note, if you are contracting with a different company to haul your waste or using a roll off box from another company, that company must have a business license to operate in the City of Torrance.

A COPY OF THIS WMP AND RECEIPTS (SHOWING MATERIAL TYPE, WEIGHT, TREATMENT AND FACILITY USED) FOR ALL RECYCLING AND DISPOSAL SHALL BE SUBMITTED BEFORE THE PROJECT WILL RECEIVE FINAL BUILDING APPROVAL. (FOR DEMO PERMITS, THE RECEIPTS FOR THE DEMOLITION WASTE SHOULD BE PROVIDED BEFORE THE FIRST FOOTING INSPECTION AFTER THE BUILDING PERMIT HAS BEEN ISSUED.)

Project Name: _____

Location: _____

Requesting Infeasibility Exemption: ☐ Yes ☐ No

Contractor Name: _____ Contact Name: _____

Address: _____ Contact Phone: _____

Recycler: _____ Recycler Contact: _____

Recycler Address: _____ Recycler Contact Phone: _____

CITY USE ONLY	
	Application (Date)
Approved	
Further explanation needed (see attached)	
Denied	
Infeasibility Exemption Approved	
Reviewed By	

Submit this form and the attached Waste Management Plan Table to: **WMP Compliance Official**

For questions or for in-person visit (by appointment only), please call 310-781-

Alison Sherman, Public Works
asherman@TorranceCA.Gov
Fax: 310-781-6902

CITY OF TORRANCE

Construction & Demolition Waste Management Plan Table

Project Name: _____

Total Estimated Waste Generated by Project: _____ (in tons).
(Ask your hauler, recycler or site cleanup vendor to assist you. Use receipts from your previous jobs for estimates)

Complete and return with Building Permit Application			Complete and return with receipts prior to final building approval		
Material Type	Estimated Reused/ Recycled	Estimated Disposed/ Landfilled	Actual Reused/ Recycled	Actual Disposed/ Landfilled	Vendor or Facility Used (Destination)
	(In Tons)	(In Tons)	(In Tons)	(In Tons)	
Asphalt & Concrete					
Bricks/Masonry/Tiles					
Building Materials (doors, windows, fixtures, etc.)					
Cardboard					
Excavated dirt and land-clearing debris					
Dirt					
Landscape Debris (Plant & Tree Trimmings)					
Scrap Metal					
Unpainted Wood & Pallets					
Other (painted wood & drywall, roofing, etc.)					
Mixed C&D*					
Trash/Garbage					
TOTAL					

If you are requesting an infeasibility exemption and the estimated amount reused/recycled is less than 50%, please explain why (attach additional sheets if necessary):

Prepared by (print): _____ Date: _____

Signature: _____ Phone Number: _____

Must be signed by Contractor or Owner. Signatory accepts financial responsibility for penalties for non-compliance.

* Mixed C&D is defined as a mixture of three or more materials (e.g. wood, drywall, roofing, etc.) from construction or demolition sites that will be taken to a facility capable of recycling those commingled materials.

CONVERSION RATES

The following conversion rates are estimates to help complete the Waste Management Plan by converting materials into tonnage format. The ranges vary widely, depending on how the materials are handled (compacted, loose, chipped, etc.). Use the conversion factors and receipts from any previous projects to help you estimate the potential amount of materials and diversion. Take into consideration the type and load of vehicles that will be used to haul the materials. Ask your hauler or recycler to assist you in estimating these numbers.

Material	Lbs/cy	Tons/cy
Asphalt	1,400 lbs/cy	0.7 tons/cy
Brick	2,430 lbs/cy	1.21 tons/cy
Cardboard	100 lbs/cy	0.05 tons/cy
Concrete	2,600 lbs/cy (Sources range from 1,000 to 4,000)	1.3 tons/cy
Dirt/Soils	2,660 lbs/cy	1.33 tons/cy
Drywall	700 lbs/cy	0.35 tons/cy
Wood (chipped)	300 - 650 lbs/cy	0.15 – 0.3 tons/cy
Mixed C&D Debris	900 lbs/cy	0.45 tons/cy
Mixed Waste/Trash	100 - 350 lbs/cy	0.5 - 0.175 tons/cy

APPENDIX VI

VIDEO DETECTION

GENERAL PROCUREMENT SPECIFICATION

1. Video Detection - General

This specification sets forth the minimum requirements for a system that monitors vehicles on a roadway via processing of video images. The detection of vehicles passing through the field-of-view of an image sensor shall be made available to a large variety of end user applications as simple contact closure outputs that reflect the current real-time detector or alarm states (on/off) or as summary traffic statistics that are reported locally or remotely. The contact closure outputs shall be provided to a traffic signal controller and comply with the National Electrical Manufacturers Association (NEMA) type C or D detector rack or 170 input file rack standards.

The system architecture shall fully support Ethernet networking of system components through a variety of industry standard and commercially available infrastructures that are used in the traffic industry. The data communications shall support direct connect, [modem,] and multi-drop interconnects. Simple, standard Ethernet wiring shall be supported to minimize overall system cost and improve reliability, utilizing existing infrastructure and ease of system installation and maintenance. Both streaming video and data communications shall optionally be interconnected over long distances through fiber optic, microwave, or other commonly used digital communications transport configurations.

On the software application side of the network, the system shall be integrated through a client-server relationship. A communications server application shall provide the data communications interface between as few as one to as many as hundreds of Machine Vision Processor (MVP) sensors and a number of client applications. The client applications shall either be hosted on the same PC as the communications server or may be distributed over a local area network of PC's using the industry standard TCP/IP network protocol. Multiple client applications shall execute simultaneously on the same host or multiple hosts, depending on the network configuration. Additionally, a web-browser interface shall allow use of industry standard Internet web browsers to connect to MVP sensors for setup, maintenance, and playing digital streaming video.

1.1 System Hardware

The machine vision system hardware shall consist of three components: 1) a color, 559 step adjustment, 10x zoom, MVP sensor 2) a modular cabinet interface unit 3) a communication interface panel. Additionally, an optional Personal Computer (PC) shall host the server and client applications that are used to program and monitor the system components. The real-time performance shall be observed by viewing the video output from the sensor with overlaid flashing detectors to indicate the current detection state (on/off). The MVP sensor shall optionally store cumulative traffic statistics internally in non-volatile memory for later retrieval and analysis.

The MVP shall communicate to the modular cabinet interface unit via the communications interface panel and the software applications using the industry standard TCP/IP network protocol. The MVP shall have a built-in, Ethernet-ready, Internet Protocol (IP) address and shall be addressable with no plug in devices or converters required. The MVP shall provide standard MPEG-4 streaming digital video. Achievable frame rates shall vary from 5 to 30 frames/sec as a function of video quality and available bandwidth.

The modular cabinet interface unit shall communicate directly with up to eight (8) MVP sensors and shall comply with the form factor and electrical characteristics to plug directly into a NEMA type C or D detector rack providing up to thirty-two (32) inputs and sixty-four (64) outputs or a 170 input file rack providing up to sixteen (16) contact closure inputs and twenty-four (24) contact closure outputs to a traffic signal controller.

The communication interface panel shall provide four (4) sets of three (3) electrical terminations for three-wire power cables for up to eight (8) MVP sensors that may be mounted on a pole or mast arm with a traffic signal cabinet or junction box. The communication interface panel shall provide high-energy transient protection to electrically protect the modular cabinet interface unit and connected MVP sensors. The communications interface panel shall provide single-point Ethernet connectivity via RJ45 connector for communication to and between the modular cabinet interface module and the MVP sensors.

1.2 System Software

The MVP sensor embedded software shall incorporate multiple applications that perform a variety of diagnostic, installation, fault tolerant operations, data communications, digital video streaming, and vehicle detection processing. The detection shall be reliable, consistent, and perform under all weather, lighting, and traffic congestion levels. An embedded web server shall permit standard internet browsers to connect and perform basic configuration, maintenance, and video streaming services.

There shall be a suite of client applications that reside on the host client / server PC. The applications shall execute under Microsoft Windows XP, Vista or Windows 7. Available client applications shall include:

- Master network browser: Learn a network of connected modular cabinet interface units and MVP sensors, display basic information, and launch applications software to perform operations within that system of sensors.
- Configuration setup: Create and modify detector configurations to be executed on the MVP sensor and the modular cabinet interface unit.
- Operation log: Retrieve, display, and save field hardware run-time operation logs of special events that have occurred.
- Software install: Reconfigure one or more MVP sensors with a newer release of embedded system software.
- Streaming video player: Play and record streaming video with flashing detector overlay.
- Data retrieval: Fetch once or poll for traffic data and alarms and store on PC storage media.
- Communications server: Provide fault-tolerant, real-time TCP/IP communications to / from all devices and client applications with full logging capability for systems integration. The communications server shall operate as a Windows® Service.

2. Functional Capabilities

2.1 MVP Sensor

The MVP sensor shall be an integrated imaging color CCD array with zoom lens optics, high-speed, dual-core image processing hardware bundled into a sealed enclosure. Total weight of the map sensor shall be less than 4 lbs. and not more than 1 square foot equivalent pressure are (EPA) total. The CCD array shall be directly controlled by the dual-core processor, thus providing high-quality video for detection that has virtually no noise to degrade detection performance. It shall be possible to zoom the lens as required for setup and operation. It shall provide JPEG video compression as well as standard MPEG-4 digital streaming video with flashing detector overlay. The MVP shall provide direct real-time iris and shutter speed control. The MVP image sensor shall be equipped with an integrated 559 step adjustment, 10x zoom lens that can be changed using either configuration computer software. The digital streaming video output and all data communications shall be transmitted over the three-wire power cable.

2.1.2 Power

The MVP sensor shall operate on 110/220 VAC, 50/60Hz at a maximum of 15 watts. The camera and processor electronics shall consume a maximum of 5 watts and the remaining 10 watts shall support an enclosure heater.

2.1.3 Detection Zone Programming

Placement of detection zones shall be by means of a PC with a Windows XP, Vista or Windows 7 operating system, a keyboard, and a mouse. The PC monitor shall be able to show the detection zones superimposed on images of traffic scenes.

The detection zones shall be created by using a mouse to draw detection zones on the PC monitor. Using the mouse and keyboard it shall be possible to place, size, and orient detection zones to provide optimal road coverage for vehicle detection. It shall be possible to download detector configurations from the PC to the MVP sensor and cabinet interface module, to retrieve the detector configuration that is currently running in the MVP sensor, and to back up detector configurations by saving them to the PC fixed disks or other removable storage media.

The supervisor computer's mouse and keyboard shall be used to edit previously defined detector configurations to permit adjustment of the detection zone size and placement, to add detectors for additional traffic applications, or to reprogram the MVP sensor for different traffic applications or changes in installation site geometry or traffic rerouting.

2.1.4 Optimal Detection

The video detection system shall optimally detect vehicle passage and presence when the MVP sensor is mounted 30 feet (10 m) or higher above the roadway, when the image sensor is adjacent to the desired coverage area, and when the distance to the farthest detection zone locations are not greater than ten (10)

times the mounting height of the MVP. The recommended deployment geometry for optimal detection also requires that there be an unobstructed view of each traveled lane where detection is required. Although optimal detection may be obtained when the MVP is mounted directly above the traveled lanes, the MVP shall not be required to be directly over the roadway. The MVP shall be able to view either approaching or receding traffic or both in the same field of view. The preferred MVP sensor orientation shall be to view approaching traffic since there are more high contrast features on vehicles as viewed from the front rather than the rear. The MVP sensor placed at a mounting height that minimizes vehicle image occlusion shall be able to simultaneously monitor a maximum of six (6) traffic lanes when mounted at the road-side or up to eight (8) traffic lanes when mounted in the center with four lanes on each side.

2.1.5 Count Detection Performance

Using an installed camera that meets the optimal viewing specifications described above for count station traffic applications, the system will be able to accurately count vehicles with at least 98% accuracy under normal operating conditions (day and night), and at least 93% accuracy under artifact conditions.

Artifact conditions are combinations of weather and lighting conditions that result from shadows, fog, rain, snow, etc. The volume count will be accumulated for the entire roadway (all traveled lanes), and accumulated over time intervals that contain a minimum of one hundred (100) vehicles to ensure statistical significance.

2.1.6 Demand Presence Detection Performance

Using an installed camera that meets the optimal viewing specifications described above for intersection control traffic applications, the system will be able to accurately provide demand presence detection.

The demand presence accuracy will be based on the ability to enable a protected turning movement on an intersection stop line, when a demand exists. The probability of not detecting a vehicle for demand presence will be less than 1% error under all operating conditions. In the presence of artifact conditions, the MVP will minimize extraneous (false) protected movement calls to less than 7%.

To ensure statistical significance, the demand presence accuracy and error will be calculated over time intervals that contain a minimum of one hundred, protected turning movements.

These performance specifications will be achieved with a minimum of 2 presence detectors coupled with a single detector function (Type-9) to provide adequate road coverage to sample the random arrival pattern of vehicles at the stop line.

The calculation of the demand presence error will not include turning movements where vehicles do not pass through the presence detectors, or where they stop short or stop beyond the combined detection zones.

2.1.7 Speed Detection Performance

The MVP will accurately measure average (arithmetic mean) speed of multiple vehicles with more than 97% accuracy under all operating conditions for approaching and receding traffic.

The average speed measurement will include a minimum of 100 vehicles in the sample to ensure statistical significance. Optimal speed detection performance requires the camera location to follow the specifications described above for count station traffic applications with the exception that the camera must be higher than 13 m (40) feet.

The MVP will accurately measure individual vehicle speeds with more than 94% accuracy under all operating conditions for vehicles approaching the camera (viewing the front end of vehicles), and more than 90% accuracy for vehicles receding from the camera (viewing the rear end of vehicles).

These specifications will apply to vehicles that travel through both the count and speed detector pair and will not include partial detection situations created by lane-changing maneuvers.

To ensure statistical significance, the average speed accuracy and error will be calculated over time intervals that contain a minimum of one hundred vehicles.

Using a MVP sensor installed within the optimal viewing specifications described above or count station traffic applications.

2.2 Modular Cabinet Interface Unit

The modular cabinet interface unit shall provide the hardware and software means for up to eight (8) MVP sensors to communicate real-time detection states and alarms to a local traffic signal controller. It shall comply with the electrical and protocol specifications of the detector rack standards. The card shall have 1500 Vrms isolation between rack logic ground and street wiring.

The modular cabinet interface unit shall be a simple interface card that plugs directly into a 170 input file rack or a NEMA type C or D detector rack. The modular cabinet interface unit shall occupy only 2 slots of the detector rack. The modular cabinet interface unit shall accept up to sixteen (16) phase inputs and shall provide up to twenty-four (24) detector outputs.

2.3 Communications Interface Panel

The communications interface panel shall support up to six MVPs. The communications interface panel shall accept 110/220 VAC, 50/60 Hz power and provide predefined wire termination blocks for MVP power connections, a Broadband-over-Power-Line (BPL) transceiver to support up to 10Mb/s inter-device communications, electrical surge protectors to isolate the modular cabinet interface unit and MVP sensors, and an interface connector to cable directly to the modular cabinet interface unit.

The interface panel shall provide power for up to eight (8) MVP sensors, taking local line voltage 110/220 VAC, 50/60 Hz and producing 110/220 VAC, 50/60 Hz, at about 20 watts to each MVP sensor. Two 1.25-amp SLO-BLO fuses or two 625 MA 510 – BLO fuses at 220 VAC. shall protect the communications interface panel.

3. System Installation & Training

The supplier of the video detection system may supervise the installation and testing of the video detection system and computer equipment as required by the contracting agency.

Training is available to personnel of the contracting agency in the operation, set up, and maintenance of the video detection system. The MVP sensor and its support hardware / software is a sophisticated leading-edge technology system. Proper instruction from certified instructors is recommended to ensure that the end user has complete competency in system operation. The User's Guide is not an adequate substitute for practical classroom training and formal certification by an approved agency.

4. Warranty, Service, & Support

For a minimum of three (3) years, the supplier shall warrant the video detection system. An option for additional year(s) warranty for up to 6 years shall be available. Ongoing software support by the supplier shall include software updates of the MVP sensor, modular cabinet interface unit, and supervisor computer applications. These updates shall be provided free of charge during the warranty period. The supplier shall maintain a program for technical support and software updates following expiration of the warranty period. This program shall be available to the contracting agency in the form of a separate agreement for continuing support.

APPENDIX VII

SIGNING TABLE

190th St to I-405 S On/Off Ramp
(ALL SIGNS SHOWN ON SIGNING PLANS UNLESS OTHERWISE INDICATED)

Sign Location (South to North)	Sign Designation	Sign Description	Sign Size (Inches)	Quantity	Install/Replace Post(s)?	Other Comments
190th St and Crenshaw Blvd - 190th EB Signal S/E Corner	IISNS	Crenshaw Blvd street name (Blk 19000)	See Plans	1	N	Signs on signal mast arm
	R73-6 (CA)	2 left arrows + No U-Turn	36x36	1		
190th St and Crenshaw Blvd SE corner	R14-1	Truck Route	24X18	1	N	Signs on signal post
	R10-3	Push Button to Cross	9X12	1		
	R10-3	Push Button to Cross	9X12	1	N	Existing post in good condition
	R26S (CA)	No Stopping Any Time	12x18	--	N/A	Existing post and signs in good condition. Protect in place
	R2-1 (45)	Speed Limit 45	30x36	--		
		Bus Stop		--		
190th St and Crenshaw Blvd center median - N/O intersection	R3-7	Right Lane Must Turn Right	36X36	1	N	Existing post in good condition
	R26S (CA)	No Stopping Any Time	12x18	1		
	OM11-3	Object Marker	18x18	1	Y	No existing post
190th St and Crenshaw Blvd - Crenshaw SB signal - SW Corner	IISNS	190th St street name (Blk 3200)	See Plans	1	N	Signs on signal mast arm
	R73-2 (CA)	left arrow + u-turn arrow	36x36	1		
190th St and Crenshaw Blvd SW corner	R14-1	Truck Route	24X18	1	N	Signs on signal post
	R10-3	Push Button to Cross	9X12	2		
	R26S (CA)	No Stopping Any Time	12x18	--	N/A	Existing post and sign in good condition. Protect in place
190th St and Crenshaw Blvd SW corner	R1-2	Yield	48x48x48	1	N	Existing post in good condition
190th St and Crenshaw Blvd - Crenshaw NB signal	IISNS	190th St street name (Blk 3100)	See Plans	1	N	Signs on signal mast arm
	R73-2 (CA)	left arrow + u-turn arrow	36x36	1		
190th St and Crenshaw Blvd NE corner	R14-1	Truck Route	24X18	1	N	Sign on signal post
	R10-3	Push Button to Cross	9X12	2	N	Sign on signal post
	R3-7	Right Lane Must Turn Right	36x36	--	N/A	Existing post and signs in good condition. Protect in place

**190th St to I-405 S On/Off Ramp
(ALL SIGNS SHOWN ON SIGNING PLANS UNLESS OTHERWISE INDICATED)**

Sign Location (South to North)	Sign Designation	Sign Description	Sign Size (Inches)	Quantity	Install/Replace Post(s)?	Other Comments
190th St and Crenshaw Blvd - 190th WB Signal	IISNS R73-6 (CA)	Crenshaw Blvd street name (Blk 18900) 2 left arrows + No U-Turn	See Plans 36x36	1 1	N	Signs on signal mast arm
190th St and Crenshaw Blvd NW corner	R14-1 R10-3	Truck Route Push Button to Cross	24x18 9x12	1 1	N	Signs on signal post
	R10-3 R3-7	Push Button to Cross Right Lane Must Turn Right	9x12 36x36	1 1	N	Signs on signal post
	D11-1 R26S (CA)	Bike Route No Stopping Any Time	24x18 12x18	-- --	N/A	Existing post and signs in good condition. Protect in place
		Bus Stop		--	N/A	Dispose of old sign and install new sign supplied by Transit. Existing post in good condition
Crenshaw Blvd between 190th St and 188th St - East Side	R2-1 (40) R26S (CA)	Speed Limit 40 No Stopping Any Time	30x36 12x18	1 1	N	Existing post in good condition
	R26S (CA)	No Stopping Any Time	12x18	1	N	Existing post in good condition
	OM1-3	Object Marker	18x18	1	Y	No existing post
Crenshaw Blvd between 190th St and 188th St - in center median						

190th St to I-405 S On/Off Ramp
(ALL SIGNS SHOWN ON SIGNING PLANS UNLESS OTHERWISE INDICATED)

Sign Location (South to North)	Sign Designation	Sign Description	Sign Size (Inches)	Quantity	Install/Replace Post(s)?	Other Comments
Crenshaw Blvd between 190th St and 188th St - West Side (in the Frontage/Crenshaw median)	R26S (CA)	No Stopping Any Time	12x18	6	N	Existing post in good condition
	R3-7	Right Lane Must Turn Right	36x36	1		
	R26S (CA)	No Stopping Any Time	12x18	2	N	Existing post in good condition
	R1-1	Stop	36x36	2	N	Existing post in good condition
Frontage Rd between 190th and 188th St	OM4-3	red diamond	18X18	1		
	W1-6	yellow with black arrow (right)	48x24	1	N	Existing post in good condition
		189th St street sign	See Plans	1		
		Crenshaw Blvd street sign	See Plans	1	Y	Rusty post
		Neighborhood Watch	18x24	1		
		188th St street sign	See Plans	1		
Crenshaw Blvd between 188th St and 187th Pl - West Side (in the Frontage/Crenshaw median)		Crenshaw Blvd street sign	See Plans	1	Y	Rusty post
		Neighborhood Watch	18x24	1		
	R10-7	Do Not Block Intersection	24x30	1	N	Sign on utility pole
Crenshaw Blvd between 188th St and 187th Pl - in center median	R26S (CA)	No Stopping Any Time	12x18	3	N	Existing post in good condition
Frontage Rd between 188th St and 187th Pl	OM1-3	Object Marker	18x18	3	Y	No existing post
	R1-1	Stop	36x36	1	N	Existing post in good condition

190th St to I-405 S On/Off Ramp
(ALL SIGNS SHOWN ON SIGNING PLANS UNLESS OTHERWISE INDICATED)

Sign Location (South to North)	Sign Designation	Sign Description	Sign Size (Inches)	Quantity	Install/Replace Post(s)?	Other Comments
Island at Crenshaw Pl	R1-1	Stop	36x36	--	N/A	Existing post and signs in good condition. Protect in place
	R3-1	No Right Turn	36x36	--		
	R1-1	Stop	36x36	1	Y	Replace rusty post and stop sign nearest to Crenshaw Blvd
	R3-1	No Right Turn Legend	36x36	1	N	Existing post in good condition
Crenshaw Blvd between 187th Pl and 187th St - East Side	G20-3	San Diego Fwy Long Beach Left Lane		--	N/A	Existing posts and sign in good condition. Protect in place
	R1-1	Stop	36x36	--		
	R26S (CA)	No Stopping Any Time	12x18	--	N/A	Existing post and signs in good condition. Protect in place
	R26S (CA)	No Stopping Any Time	12x18	1	N	Existing post in good condition
Crenshaw Blvd between 187th Pl and 187th St - West Side (in the Frontage/Crenshaw median)	R26S (CA)	No Stopping Any Time	12x18	4	N	Existing posts in good condition
		187th Pl street sign	See Plans	1		
		Crenshaw Blvd street sign	See Plans	1	N	Existing post in good condition
		187th St street sign	See Plans	1		
Frontage Rd between 187th Pl and 187th St		Crenshaw Blvd street sign	See Plans	1	Y	Rusty post
		Neighborhood Watch	18x24	1		
	G27-2 (CA) Marker	California 405		--	NA	Remove and dispose of sign and post in center median
	M3-4	South		--		
Crenshaw Blvd and 187th St Intersection (in Crenshaw median)	M5-1	advance left arrow		--		
	R26S (CA)	No Stopping Any Time	12x18	1	N	Existing post in good condition
		Bus Stop		--	NA	Dispose of old sign and install new sign supplied by Transit. Existing post in good condition
				--		
Crenshaw Blvd between 187th St and 186th St - East Side	G27-2 (CA) Marker	California 405	21x18	1		Install new signs and post as shown on plans
	M3-4	South	24x12	1	Y	
	M5-1	advance left arrow	21x15	1		
				--		

190th St to I-405 S On/Off Ramp
(ALL SIGNS SHOWN ON SIGNING PLANS UNLESS OTHERWISE INDICATED)

Sign Location (South to North)	Sign Designation	Sign Description	Sign Size (Inches)	Quantity	Install/Replace Post(s)?	Other Comments
Crenshaw Blvd between 187th St and 186th St - in center median	OM1-3	Object Marker	18x18	1	Y	No existing post
Crenshaw Blvd between 187th St and 186th St - West Side (in the Frontage/Crenshaw median)	R1-1	Stop	36x36	2	N	Existing post in good condition
	R26A	No Parking Anytime	12x18	1		
		Bus Stop		--	N/A	Remove and dispose of Bus Stop sign
Frontage Rd between 187th St and 186th St		186th St street sign	See Plans	1	Y	Rusty post
		Crenshaw Blvd street sign	See Plans	1		
Crenshaw Blvd between 186th St and 185th St - in center median	OM1-3	Object Marker	18x18	1	Y	No existing post
Crenshaw Blvd between 186th St and 185th St - West Side (in the Frontage/Crenshaw median)	R2-1 (40)	Speed Limit 40	30x36	1	N	Existing post in good condition
		186th St street sign	See Plans	1		
	R26S (CA)	No Stopping Any Time	12x18	1		
	R26S (CA)	No Stopping Any Time	12x18	3	N	Existing post in good condition
	R1-1	Stop	36x36	1	N	Existing post in good condition
Frontage Rd between 186th St and 185th St	R2-1 (25)	Speed Limit 25	30x36	1	N	Signs on light post
		185th St street sign	See Plans	1		
		Crenshaw Blvd street sign	See Plans	1		
		Neighborhood Watch	18x24	1	Y	Rusty post
Crenshaw Blvd between 185th St and I405 Fwy On-ramp - East Side	W12-2	15'3"	36x36	--	N/A	Exiting as noted. Protect in place
	W16-2	400 Feet Ahead	42x18	--		
	W16-9p		24x9	--		
Crenshaw Blvd between 185th St and I405 Fwy On-ramp - West Side	R9-3	No Pedestrian Crossing Legend	18X18	1	N	Signs on signal post
	R9-3a	No Pedestrian Crossing	12x18	1		
	R9-3bp	Use Crosswalk	18x12	1		
		Bus Stop		--	Y	Install new sign and new post as shown on plans; sign will be supplied by Transit
	R26S (CA)	No Stopping Any Time	12x18	1	N	Sign on light post

190th St to I-405 S On/Off Ramp
(ALL SIGNS SHOWN ON SIGNING PLANS UNLESS OTHERWISE INDICATED)

Sign Location (South to North)	Sign Designation	Sign Description	Sign Size (Inches)	Quantity	Install/Replace Post(s)?	Other Comments
Crenshaw Blvd and I405 On-ramp Intersection - East Side		No Oversized Vehicles	24x30	—	NA	Existing post and sign in good condition. Protect in place
		Torrance Municipal Airport	See Plans	1	N	Existing post in good condition
	R49 (CA)	No Pedestrian Crossing Use Crosswalk	42X18	1	N	Sign on signal post
	R3-4	no u-turn arrow	36x36	1		
	R61-11 (CA)	left lane turns left or right, right lane must turn right arrows	54x45	1	Y	Replace wooden post with metal post
Crenshaw Blvd and I405 On-ramp Intersection - Crenshaw Blvd Southbound (in median)	R3-18 (CA)	no left turn, no u-turn arrows	36x36	1	N	Sign on signal post
Crenshaw Blvd and I405 On-ramp Intersection - Crenshaw Blvd Northbound (in median)	R3-4	no u-turn arrow	36x36	1	N	Sign on signal post
Crenshaw Blvd and I405 Intersection NW corner - Crenshaw SB	R26S (CA)	No Stopping Any Time	12x18	1		
	R9-3	No Pedestrian Crossing Legend	18x18	1	N	Signs on signal post
	R9-3a	no pedestrian crossing	12x18	1		
	R9-3bp	Use Crosswalk	18x12	1		
	G85-6 (CA)*†	405 South; Long Beach		—	N/A	Existing as noted. Protect in place
	G27-2 (CA) Marker M3-4	California 405 South	25x30	—		
	M6-4	right arrow	21x9	—	N/A	Existing as noted. Protect in place
	G92 (CA)	Freeway Entrance	21x15	—		
	R10-3	Push Button to Cross	48x30	—		
		Push Button to Cross	9X12	1	N	Sign on signal post

for detailed dimensions, see California MUTCD 2012 Edition at <http://www.dot.ca.gov/hq/traffops/signtech/mutcdsupp/pdf/camutcd2012/Part2.pdf>

I-405 S On/Off Ramp to 182nd St
(ALL SIGNS SHOWN ON SIGNING PLANS UNLESS OTHERWISE INDICATED)

Sign Location (South to North)	Sign Designation	Sign Description	Sign Size (Inches)	Quantity	Install/Replace Post(s)?	Other Comments
Crenshaw Blvd between I405 On-ramp and 182nd St - East Side	W12-2	15'3"	36x36	--	N/A	Existing as noted. Protect in place
	R26S (CA)	No Stopping Any Time	12x18	1	N	Existing post in good condition
	W74 (CA)	Thru Traffic Merge Left	48x48	1		
	R26S (CA)	No Stopping Any Time	12x18	1	N	Existing post in good condition
	R3-7	Right Lane Must Turn Right	36x36	1	N	Existing post in good condition
	G85-6 (CA)*†	405 North; Santa Monica		--	NA	Existing as noted. Protect in place
	R3-7	Right Lane Must Turn Right	36x36	1	N	Existing post in good condition
	R26S (CA)	No Stopping Any Time	12x18	1		
	R13A (CA)	No Turn on Red Legend	24x36	1	N	Sign on Signal Post
	R82A (CA) Supplemental	6-9am except Sundays and Holidays	36x18	—	NA	Existing as noted. Protect in place
Crenshaw Blvd between I405 On-ramp and 182nd St - in center median	OM1-3	Object Marker	18x18	1	Y	No existing post
Crenshaw Blvd between I405 On-ramp and 182nd St - West Side	G27-2 (CA) marker M3-4 M6-4	California 405 South right arrow		--	N/A	Existing as noted. Protect in place
	W12-2	15'3"	36X36	--	N/A	Existing as noted. Protect in place
		Bus Stop		—	N/A	Dispose of old sign and install new sign on bus stop shelter; sign will be supplied by Transit
	R26S (CA)	No Stopping Any Time	12x18	2	N	Existing post in good condition
	R26S (CA)	No Stopping Any Time	12x18	—	NA	Remove and dispose of existing sign and post

I-405 S On/Off Ramp to 182nd St
(ALL SIGNS SHOWN ON SIGNING PLANS UNLESS OTHERWISE INDICATED)

Sign Location (South to North)	Sign Designation	Sign Description	Sign Size (Inches)	Quantity	Install/Replace Post(s)?	Other Comments
Crenshaw Blvd Northbound, hanging on freeway overpass	W12-2p G8-4 (CA)*†	15ft 3in San Diego Fwy; Santa Monica	84x24	--	N/A	Existing as noted. Protect in place
Crenshaw Blvd Southbound, hanging on freeway overpass	W12-2p G8-4 (CA)*†	15ft 3in San Diego Fwy; Long Beach	84x24	--	N/A	Existing as noted. Protect in place
182nd St and Crenshaw Blvd - Crenshaw NB Signal	R3-4	No u-turn arrow	36x36	1	N	Sign on signal mast arm
182nd St and Crenshaw Blvd NE corner	R14-1	Truck Route	24x18	1	N	Signs on signal post
	R10-3	Push Button to Cross	9x12	1		
		182nd St street sign	See Plans	1		
182nd St and Crenshaw Blvd - 182nd EB Signal	R26S (CA)	No Stopping Any Time	12x18	1	N	Signs on signal post
	R10-3	Push Button to Cross	9x12	1		
182nd St and Crenshaw Blvd SE corner	R14-1	Truck Route	24x18	1	N	Sign on signal post
182nd St and Crenshaw Blvd - 182nd WB Signal	R10-3	Push Button to Cross	9x12	1	N	Sign on signal post
		Truck Route w Lt/Rt Arrows		--	NA	Existing as noted. Protect in place
	R5-2 R10-3	No trucks image Push Button to Cross	24x24 9x12	1 1	N	Signs on signal post
182nd St and Crenshaw Blvd NW corner	R10-3	Push Button to Cross	9x12	1	N	Signs on signal post
	R26S (CA)	No Stopping Any Time	12x18	1		
182nd St and Crenshaw Blvd - 182nd WB Signal Post (East Side of the Intersection)	R73-8 (CA)	Left turn + Left turn and Thru. No U Turn Arrows	36x45	1	N	Signs on signal post w/o signal light

**I-405 S On/Off Ramp to 182nd St
(ALL SIGNS SHOWN ON SIGNING PLANS UNLESS OTHERWISE INDICATED)**

Sign Location (South to North)	Sign Designation	Sign Description	Sign Size (Inches)	Quantity	Install/Replace Post(s)?	Other Comments
182nd St and Crenshaw Blvd - Crenshaw SB Signal	R14-1	Truck Route	24x18	1	N	Signs on signal post
	R49 (CA)	No Pedestrian Crossing Use Crosswalk	42X18	1		
182nd St and Crenshaw Blvd SW corner	R10-3	Push Button to Cross	9x12	1	N	Existing post in good condition
	R26S (CA)	No Stopping Any Time	12x18	1	N	Existing post in good condition
for detailed dimensions, see California MUTCD 2012 Edition at http://www.dot.ca.gov/hq/traffops/signtech/mutcdsupp/pdf/camutcd2012/Part2.pdf						

APPENDIX VIII

PROJECT CONSTRUCTION SIGN

ROUND CORNERS IF ALUMINUM
OPTION USED

BLACK LETTERS

6'x6'x3/4" PLYWOOD BOARD
OR
6'x6'x.08" ALUMINUM SHEET

WHITE BACKGROUND

3 - 3/8" CARRIAGE BOLTS
(5" LONG)
TYPICAL EACH POST

1" BLACK LINE

4"x4" WOODEN POST

CRENSHAW BLVD.
REHABILITATION

YOUR TAX DOLLARS
AT WORK

CITY COUNCIL

FRANK SCOTTO - MAYOR

GENE BARNETT

CLIFF NUMARK

TOM BREWER

BILL SUTHERLAND

PAT FUREY

KURT WEIDEMAN

DANA CORTEZ - CITY TREASURER

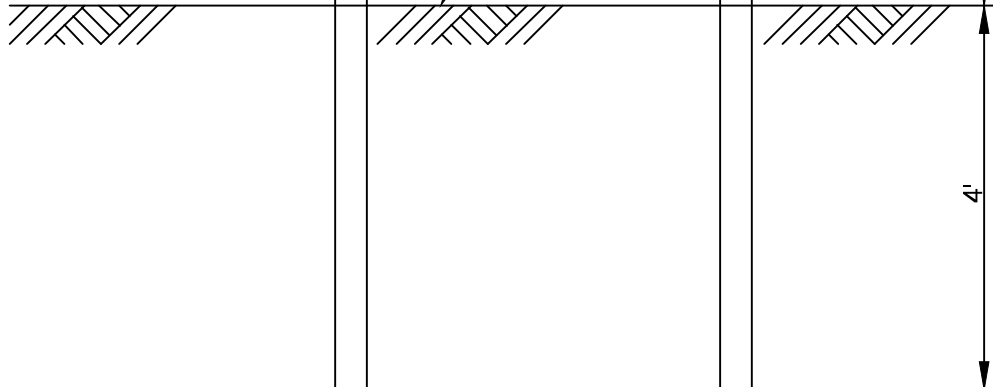
SUE HERBERS - CITY CLERK

LeROY J. JACKSON - CITY MANAGER

INFO: (310) 781-6900

12"
TYP.

GROUND
SURFACE



APPENDIX IX

CALTRANS ENCROACHMENT PERMIT

REPLY CARD
7-MP-37 (REV. 7/07)

PERMIT NO 713-NMC-1065

C0/RTE/PM 07-LA-405-7m 15.45

INSPECTOR L. Tokuyama / R. Grippo

PERMITTEE City of Torrance, Public Works Dept

DEAR SIR OR MADAM:

ALL WORK AUTHORIZED BY THE ABOVE NUMBERED PERMIT
WAS COMPLETED ON:

DATE _____

SIGNED: _____

STATE OF CALIFORNIA · DEPARTMENT OF TRANSPORTATION
ENCROACHMENT PERMIT
TR-0120 (REV 6/2007)

Permit No 713-NMC-1065	
Dist/Co/Rte/PM 07-LA-405-PM 15.45	
Date September 26, 2013	
Fee Paid \$ Exempt	Deposit \$
Performance Bond Amount (1) \$	Payment Bond Amount (2) \$
Bond Company	
Bond Number (1)	Bond Number (2)

In compliance with (Check one):

- ☒ Your application of May 13, 2013
- ☐ Utility Notice No. _____ of _____
- ☐ Agreement No. _____ of _____
- ☐ RW Contract No. _____ of _____

TO: City of Torrance, Public Works Department
20500 Madrona Avenue
Torrance, CA 90503

Attn: Lubna Arikat
Phone: (310) 618-3066

, PERMITTEE

and subject to the following, PERMISSION IS HEREBY GRANTED to:

encroach within the State's right of way for the purpose of **resurfacing roadway, replacing existing concrete surface within the center median with new brick pavers, and performing associated traffic control activities along Crenshaw Blvd at Route 405, in the city of Torrance;** all in accordance with *current* State specifications and standards, the attached special provisions, and permit plans with red marks dated **September 26, 2013**.

****See Ramp Closure Charts No. 1 and 2 for closure hours****

Permittee shall contact State permit inspector, **Mr. Larry Tokuyama at (310) 609-0354**, between the hours of 0700 and 0900, a minimum of 10 working days prior to the initial start of work to arrange a pre-construction meeting to ensure a complete understanding of the work and permit requirements. A confirmation notification should occur three days prior to closure or other potential traffic impacts.

THIS PERMIT IS NOT A PROPERTY RIGHT AND DOES NOT TRANSFER WITH THE PROPERTY TO A NEW OWNER.

The following attachments are also included as part of this permit (Check applicable):

- ☒ Yes ☐ No General Provisions
- ☐ Yes ☒ No Utility Maintenance Provisions
- ☒ Yes ☐ No Storm Water Special Provisions
- ☒ Yes ☐ No Special Provisions A, C, K, H, Q, and R
- ☐ Yes ☒ No A Cal-OSHA Permit, if required. Permit No. _____
- ☐ Yes ☒ No As-Built Plans Submittal Route Slip for Locally Advertised Projects
- ☐ Yes ☒ No Storm Water Pollution Prevention Plan

In addition to fee, the permittee will be billed actual cost for:

- ☐ Yes ☒ No Review
- ☐ Yes ☒ No Inspection
- ☒ Yes ☐ No Field Work

(If any Caltrans effort expended)

- ☐ Yes ☒ No The information in the environmental documentation has been reviewed and considered prior to approval of this permit.

This permit is void unless work is completed before **October 31, 2014**

This permit is to be strictly construed and no other work than specifically mentioned is hereby authorized.

No project work shall be commenced until all other necessary permits and environmental clearances have been obtained.

cc: South Region
L. Tokuyama, Insp.
R. Griffo, Insp.
File

APPROVED

BY

Zoe Yue, P.E., District Permit Engineer

Dara Loeung, P.E., Permit Engineer

SPECIAL PROVISIONS

The attached District's Standard Special Provisions are generalizations of the Department's Standard Specifications and are included only as a convenience to the Permittee; it shall not be construed as the only provisions pertaining to this permit. Permittee shall reference the current Department's Standard Specifications for complete and unabridged specification requirements.

1. By acceptance of this permit, the permittee understands and agrees to reimburse the State for all costs incurred for performing corrective work in the event that the permittee or permittee's representatives fail to install, replace, repair, restore, or remove facilities to state specifications for the immediate safe operation of the highway and satisfactory completion of all permit work. State forces may perform corrective work or it may be contracted out. Understood is that the above charges are in addition to permit fees, and an invoice will be sent to permittee for said charges after satisfactory completion of all work.
2. Permittee shall fully conform to the requirements of the Department of Transportation Statewide National Pollution Discharge Elimination System (NPDES) Storm Water Permit No. 2009-0009-DWQ, and NPDES No. CAS000002, adopted by the State Water Resources Control Board (Board) on July 1, 2009. The permittee shall also conform to the requirements of the General NPDES Permit of Construction Activities and any subsequent General Permit in effect at the time of issuance of this Encroachment Permit. These permits regulate storm water and no-storm water discharges associated with year-round construction or special event encroachment activities.
3. If contractor forces perform the work authorized by this permit, permittee's contractor shall furnish the State with a signed application requesting a separate Caltrans permit (Double Permit) authorizing the contractor to perform the work within the State's right of way on behalf of the permittee, a "Performance Bond" and a "Payment Bond" maybe required. Contractor's bonds may be waived if the contractor has bonds for 100 percent of the project with the permittee. **Contractor shall not begin work until the Double permit is approved.**

Permittee's contractor will be required to reimburse the State for the cost incurred for engineering inspection of the work within the State highway right of way and all other permit related field work performed by Caltrans maintenance forces when, as determined by Caltrans, it becomes necessary. **Estimated engineering inspection fees are \$1,148.00**

Permittee's contractor is required to have the signed permit and the double permit with all Special Provisions and plans stamped "CALTRANS PERMIT PLANS" dated **September 26, 2013** at the work site at all times while work is being conducted.

Permittee shall remain solely responsible for compliance with all requirements of this permit.

4. All work performed pursuant to this permit shall be performed in accordance with the **current** Department of Transportation's Standard Specifications, Standard Plans, Encroachment Permit Utility Provisions, and shall comply with all provisions of this permit and the instructions of the State permit inspector. Any violation of this permit shall constitute grounds for revocation of the permit.
5. It is the responsibility of the permittee, permittee's agents, or contractors to comply with all provisions of this permit and instructions from the State permit inspector. Permittee shall keep the permit package or copies thereof, at the work site at all times and show it upon request to any Department representative or law enforcement officer. When the permit package is not available, then immediate suspension of permit will occur.
6. Permittee shall furnish the necessary inspection to provide for public safety and to insure that all work within or affecting the State's right of way pursuant to this permit is in accordance with State Standards and requirements. The State permit inspectors will monitor the work authorized under this permit and the work is subject to the approval of the State permit inspectors.
7. Prior to performing any work pursuant to this permit, the permittee shall obtain all necessary permits and authorizations required of other governmental agencies and by law. The permittee shall make the necessary arrangements with the appropriate agencies to monitor and test performed work to ensure accordance with requirements of those agencies.
8. Permittee is responsible for restoration and repair of the State's right of way resulting from permitted work (State Streets and Highways Code, Sections 670 et. seq.). Upon completion of work, permittee shall remove and dispose of all scraps, brush, timber, materials, etc. off the State's right of way.
9. All striping, pavement markings, and markers obliterated by the work authorized by this permit shall be replaced in kind or better, as directed by the State permit inspector at no cost to the State.
10. Existing traffic signal, lighting, electrical systems, and underground installations (shown on the permit plans or not) damaged by the work authorized by this permit shall be replaced in kind, restored in kind, or better as directed by the State permit inspectors at no cost to the State.

11. Potentially hazardous waste material, if encountered during implementation of permitted work, then all work within the affected area shall cease immediately. The permittee shall contact the State permit inspector to arrange a site assessment by a Caltrans hazardous material coordinator.
12. Do not store materials within the State's right of way and remove materials at the end of the day or properly store it as directed by the State permit inspector.
13. Adequately shore trench to conform to requirements of the California Department of Safety and Health. Provide approved Cal OSHA Permit to State permit inspector when required.
14. American National Standards Institute (ANSI) compliant Class II vests and hard hats shall be worn while working within State's right of way. Workers working at night will be required to wear ANSI Class III warning garments. Class III compliance can be achieved by combining ANSI Class E pants worn with an ANSI Class II vest.
15. "The California Public Resources Code Chapter 1.7, Section 5097.5 makes it a misdemeanor for anyone to knowingly disturb an archaeological or historical feature. California Public Resources Code Sections 5097.98 and 5097.99 require protection of Native American remains that may be found and outlines procedures for handling any burials found.

The California Administrative Code, Title 14, Section 4308, requires that no person disfigure any object of historical interest or value. The California Penal Code, Title 14, Part 1, Section 622-1/2 makes it a misdemeanor to destroy anything of historical value within any public place.

Should human skeletal material or archaeological material be found during construction activities, all work must be halted within 30 feet of the find. The Encroachment Permit Applicant shall notify the Caltrans Senior Archaeologist (Gary Iverson at 213-897-3818) immediately. Construction activities within 30 feet of the find shall remain halted until the Caltrans Senior Archaeologist (Gary Iverson) or his representative have determined that all legal compliance conditions have been met before any work may resume in the area of the find.

The Department reserves the right to use other forces for exploratory work to identify the extent of areas requiring archaeological evaluation or recovery. Contractor labor, equipment and materials required to assist the archaeologist to ensure legal compliance shall be paid by the Encroachment Permit Applicant. All archaeological materials found during project activity shall become the property of the State."

16. Permittee shall arrange a pre-job meeting as required; if a pre-job does not take place, cancellation of the permit may occur. Permittee's contractor shall submit a written schedule to the State permit inspector for review and approval prior to the commencement of work. The State permit inspector must ascertain and agree to all work details and all aspects of traffic control or no work shall begin on this permit.
17. Any deviation from these procedures or conditions will cause suspension of all work until satisfactory compliance by permittee or permittee's contractor.
18. If a time extension for this permit is required, request one 30 days in advance of the expiration date. Permit closure occurs after the expiration date, once this occurs reactivation will not occur. It will be the responsibility of the permittee to reapply by submitting an application and plans, if the need for a permit is still present.
19. Typically, working hours and traffic control are authorized only between 0900 and 1500, Monday through Friday, holidays excluded.
20. Any traffic control that requires lane/ramp closure shall be in compliance with the appropriate traffic control plan, current California Manual on Uniform Traffic Control Devices (CA MUTCD), current Caltrans Standard Plans, and Special Provision. Where required, the use of a flashing arrow-board is MANDATORY.
21. Permittee shall obtain a closure number from the State permit inspector and notify Caltrans District Communication Center by telephone at (323) 259-2352 immediately prior to installation of a lane/ramp closure. Inform Caltrans' dispatcher with the "10-97 closure number _____" before closure installation, and the "10-98 closure number _____" after closure has been removed with lane/ramp opened to traffic. Permittee shall also provide the Caltrans' dispatcher with an on-site phone number where information regarding this permit may be readily obtained during the closure period.
22. When ramp closure is required, then permittee shall post advance-warning signs a minimum of 7 calendar days prior to actual closure or as directed by the State permit inspector. Signs shall comply with Caltrans specifications, standards, and shall contain the date, time, and duration of the closure.
23. A California licensed C31 company shall perform traffic controls on freeways, expressways, and high speed facilities.

24. There is a need of a full time Civil Inspector; the permittee is required to provide a full time inspector who has a minimum of five (5) years field experience to oversee the entire works under this permit. A minimum of two (2) weeks prior the start of work, permittee's civil inspector shall submit his/her resume for review and arrange an interview with State permit inspector. Please note that Caltrans reserves the right to reject or disqualify the appointed inspector if he/she shows low performance on the job or fail to comply with State requirements.
25. If a bus stop is located within the area of construction, the permittee shall contact MTA or the local transit agency to arrange a temporary bus stop.
26. Personal vehicles shall not be parked within the limits of the construction/work zone, parking restrictions extends to roadway areas closed to public traffic.
27. A qualified third party testing agency shall be identified to perform all the tests such as compaction, AC, & base material during the construction. All reports shall be promptly submitted to the State permit inspector for review and approval.
28. Existing concrete sidewalk shall be saw cut at the scoreline to the full depth of concrete and shall be performed in conformance with the attached Special Provision "B" and "C."
29. Damaged curb and gutter, pavement, and/or sidewalk shall be replaced as determined appropriate by State permit inspector.
30. Permittee shall place "Sidewalk Closed" signs and shall provide and maintain at all times a safe passage way and protection of pedestrian traffic including disable person on wheelchair in accordance with CA MUTCD and ADA regulations/guidelines.
31. The new curb and gutter, and/or sidewalk shall match adjacent existing facilities.
32. A monolithic pour of curb and gutter, and sidewalk is not permitted.
33. Permittee shall be responsible for the relocation or adjustment of any utility required as the result of work authorized by this permit, and utility relocation shall be completed prior to the installation of any new curb and gutter, or sidewalk.
34. Utility boxes are not allowed within the boundaries of new wheelchair ramp and driveways.
35. 12 inches of Asphalt concrete next to the gutter to be removed shall be saw-cut to full depth and replaced with hot mix AC.
36. All open trenches within the traveled way shall be back-filled, compacted, and temporary pavement (minimum 3-inch thick) placed before the end of each working day. Shoring and properly placed, and maintained, skid resistant steel plates may be substituted for the back filling for short use when pre-approved by State permit inspector.
37. If the State permit inspector for short time use authorizes steel plates, plates shall be recessed into the existing pavement so that surface of the plates is flush with the roadway pavement as per Special Provision "C."
38. Steel plates used for bridging must extend a minimum of 12 inches beyond the edges of the trench.
39. Sand cement slurry for backfill material shall be 1½ sacks per cubic yard. If Permittee chooses to backfill with native or imported material, a compaction test is required to verify 95% compaction.
40. Surface restoration shall include cold plane a minimum of 1-foot beyond trench line to a minimum depth of 2 inches.
41. A minimum clearance of 42 inches shall be provided between the top of the pipe/conduit and the surface of the pavement.
42. For Overlaying Freeway under crossing, the permittee shall measure the bridge vertical clearance prior and after the overlay and submit survey notes verifying no change on the vertical clearance as result of their work.
43. Permittee shall pothole and positively identify the fiber optics cable (FOC) before any excavation work to ensure that the excavation area is clear of any FOC.
44. In the event the fiber optics cable (FOC) is damaged, temporary fusion splicing will be required within 24 hours to restore the damaged cable, and the permittee shall replace the FOC from vault to vault at the permittee's expense.

Chart No. 1 Complete Ramp Closure Hours/Ramp Lane Requirements																									
County: LA						Route/Direction: SB 405										PM: 15.624									
Closure Limits: SB Route 405 Off-ramp to Crenshaw Blvd.																									
FROM HOUR TO HOUR	24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Mondays through Thursdays	C	C	C	C	C	C																		C	C
Fridays	C	C	C	C	C	C																		C	C
Saturdays	C	C	C	C	C	C	C	C														C	C	C	C
Sundays	C	C	C	C	C	C	C	C	C														C	C	C
<p>Legend:</p> <div style="display: flex; flex-direction: column; gap: 5px;"> <div> <div style="border: 1px solid black; width: 20px; height: 10px; display: flex; align-items: center; justify-content: center;">+</div> Provide at least one ramp lane, not less than 11 feet in width, open in direction of travel </div> <div> <div style="border: 1px solid black; width: 20px; height: 10px; display: flex; align-items: center; justify-content: center;">=</div> Provide at least two adjacent ramp lanes open in direction of travel </div> <div> <div style="border: 1px solid black; width: 20px; height: 10px; display: flex; align-items: center; justify-content: center;">C</div> Ramp may be closed completely </div> <div> <div style="border: 1px solid black; width: 20px; height: 10px; display: flex; align-items: center; justify-content: center;">S</div> Shoulder closure permitted </div> <div> <div style="border: 1px solid black; width: 20px; height: 10px; display: flex; align-items: center; justify-content: center;">N</div> No work permitted </div> <div> <div style="border: 1px solid black; width: 20px; height: 10px; display: flex; align-items: center; justify-content: center;"></div> Work permitted within project right of way where shoulder or lane closure is not required. </div> </div>																									
REMARKS: The full width of the traveled way shall be open for use by public traffic when construction operations are not actively in progress.																									

Chart No. 2
Complete Ramp Closure Hours/Ramp Lane Requirements

County: LA	Route/Direction: SB 405										PM: 15.514														
Closure Limits: SB Route 405 On-ramp from Crenshaw Blvd.																									
FROM HOUR TO HOUR	24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Mondays through Thursdays	C	C	C	C	C																			C	C
Fridays	C	C	C	C	C																				C
Saturdays	C	C	C	C	C	C	C																		C
Sundays	C	C	C	C	C	C	C	C																C	C

Legend:

+	Provide at least one ramp lane, not less than 11 feet in width, open in direction of travel
2	Provide at least two adjacent ramp lanes open in direction of travel
C	Ramp may be closed completely
S	Shoulder closure permitted
N	No work permitted
	Work permitted within project right of way where shoulder or lane closure is not required.

REMARKS: The full width of the traveled way shall be open for use by public traffic when construction operations are not actively in progress.

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

STANDARD ENCROACHMENT PERMIT APPLICATION

TR-0100 (REV. 07/2007)

Permission is requested to encroach on the State Highway right-of-way as follows:
 (Complete all BOXES [write N/A if not applicable])
 This application is not complete until all requirements have been approved.

1. COUNTY Los Angeles		2. ROUTE 405	3. POSTMILE 15.45	
4. ADDRESS OR STREET NAME I-405 Ramps @ Crenshaw Bl/182nd St			5. CITY Torrance	
6. CROSS STREET (Distance and direction from site) Crenshaw Blvd/182nd St			7. PORTION OF RIGHT-OF-WAY On & Off Ramps	
8. WORK TO BE PERFORMED BY <input type="checkbox"/> OWN FORCES <input checked="" type="checkbox"/> CONTRACTOR			9. EST. START DATE September 2013	
10. EST. COMPLETION DATE July 2014			DATE OF SIMPLEX STAMP 5/13/13	
11. EXCAVATION	MAX. DEPTH	AVG. DEPTH	AVG. WIDTH	LENGTH
12. EST. COST IN STATE HIGHWAY RIGHT-OF-WAY			FUNDING SOURCE(S) <input checked="" type="checkbox"/> FEDERAL <input type="checkbox"/> STATE <input type="checkbox"/> LOCAL <input type="checkbox"/> PRIVATE	
13. PIPES	PRODUCT TYPE	DIAMETER	VOLTAGE / PSIG	14. CALTRANS PROJECT E.A. NUMBER 965100-3ENVR

15. ☐ Double Permit Parent Permit Number N/A

Applicant's Reference Number / Utility Work Order Number _____

16. Have your plans been reviewed by another Caltrans branch? ☒ NO ☐ YES (If "YES") Who? _____

17. Completely describe work to be done within STATE highway right-of-way :

Attach 6 complete sets of FOLDED plans (folded 8.5" x 11"), and any applicable specifications, calculations, maps, etc.
 All dimensions shall be in U.S. Customary (English) Units.

1) Daytime single lane closure and nighttime/weekend full closure of I-405 southbound off-ramp onto Crenshaw Blvd to accommodate work on Crenshaw Bl, a City-owned roadway within City right-of-way.

2) Daytime single lane closure of I-405 northbound off-ramp onto 182nd St to accommodate work on Crenshaw Bl, a City-owned roadway within City right-of-way.

3) In the center median on Crenshaw Blvd, under the I-405 Overcrossing, City is replacing the existing concrete surface within the center median and installing new brick pavers. Existing median curb/gutter to remain.

18. Is a city, county, or other agency involved in the approval of this project?

☒ YES (If "YES", check type of project and attach environmental documentation and conditions of approval.)☐ COMMERCIAL DEVELOPMENT ☐ BUILDING ☐ GRADING ☐ OTHER _____☒ CATEGORICALLY EXEMPT ☐ NEGATIVE DECLARATION ☐ ENVIRONMENTAL IMPACT REPORT ☐ OTHER _____☐ NO (If "NO", please check the category below which best describes the project, and complete page 4 of this application.)☐ DRIVEWAY OR ROAD APPROACH RECONSTRUCTION, MAINTENANCE, OR RESURFACING☐ PUBLIC UTILITY MODIFICATIONS, EXTENSIONS, HOOKUPS☐ FLAGS, SIGNS, BANNERS, DECORATIONS, PARADES AND CELEBRATIONS☐ OTHER _____☐ FENCE☐ MAILBOX☐ EROSION CONTROL☐ LANDSCAPING19. Will this project cause a substantial change in the significance of a historical resource (45 years or older), or cultural resource? ☐ YES ☒ NO (If "YES", provide a description)20. Is this project on an existing highway or street where the activity involves removal of a scenic resource including a significant tree or stand of trees, a rock outcropping or a historic building? ☐ YES ☒ NO (If "YES", provide a description)21. Is work being done on applicant's property? ☒ YES ☐ NO (If "YES", attach site and grading plans.)

ADA NOTICE: For individuals with sensory disabilities, this document is available in alternate formats. For information call (916) 654-6419 or TDD (916) 654-3880 or write to Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA 95814

City of Torrance - DDP

FOR CALTRANS USE

PERMIT NO

713-NMC-1065

DIST/CO/RTE/PM

7-LA-405-15-45

SIMPLEX STAMP

1065

DATE OF SIMPLEX STAMP

5/13/13

10. EST. COMPLETION DATE

July 2014

SURFACE TYPE

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MAY 13 2013

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STANDARD ENCROACHMENT PERMIT APPLICATION

TR-0100 (REV. 07/2007)

PERMIT NO

713-NMC-1065

22. Will this proposed project require the disturbance of soil?

☐ YES ☒ NOIf "YES", estimate the area within State Highway right-of-way in square feet AND acres _____ (ft²) AND _____ (acres)estimate the area outside of State Highway right-of-way in square feet AND acres _____ (ft²) AND _____ (acres)

23. Will this proposed project require dewatering?

☐ YES ☒ NO

If "YES", estimate total gallons AND gallons/month _____ (gallons) AND _____ (gallons/month)

SOURCE: ☐ STORMWATER ☐ NON-STORM WATER(*See Caltrans SWMP for definitions of non-storm water discharge <http://www.dot.ca.gov/hq/env/stormwater/index.htm>)

24. How will any storm water or ground water be disposed of from within or near the limits of this proposed project?

☒ Storm Drain System ☐ Combined Sewer / Storm System ☐ Storm Water Retention Basin☐ Other(explain) _____PLEASE READ THE FOLLOWING CLAUSES PRIOR TO SIGNING THIS ENCROACHMENT PERMIT APPLICATION.

The applicant, understands and herein agrees to that an encroachment permit can be denied, and/or a bond required for non-payment of prior or present encroachment permit fees. Encroachment Permit fees may still be due when an application is withdrawn or denied, and that a denial may be appealed, in accordance with the California Streets and Highways Code, Section 671.5. All work shall be done in accordance with Caltrans rules and regulations subject to inspection and approval.

The applicant, understands and herein agrees to the general provisions, special provisions and conditions of the encroachment permit, and to indemnify and hold harmless the State, its officers, directors, agents, employees and each of them (Indemnitees) from and against any and all claims, demands, causes of action, damages, costs, expenses, actual attorneys' fees, judgments, losses and liabilities of every kind and nature whatsoever (Claims) arising out of or in connection with the issuance and/or use of this encroachment permit and the placement and subsequent operation and maintenance of said encroachment for: 1) bodily injury and/or death to persons including but not limited to the Applicant, the State and its officers, directors, agents and employees, the Indemnities, and the public; and 2) damage to property of anyone. Except as provided by law, the indemnification provisions stated above shall apply regardless of the existence or degree of fault of Indemnities. The Applicant, however, shall not be obligated to indemnify Indemnities for Claims arising from the sole negligence and willful misconduct of State, its officers, directors, agents or employees.

DISCHARGES OF STORM WATER AND NON-STORM WATER: Work within State Highway right-of-way shall be conducted in compliance with all applicable requirements of the National Pollutant Discharge Elimination System (NPDES) permit issued to the Department of Transportation (Department), to govern the discharge of storm water and non-storm water from its properties. Work shall also be in compliance with all other applicable Federal, State and Local laws and regulations, and with the Department's Encroachment Permits Manual and encroachment permit. Compliance with the Department's NPDES permit requires amongst other things, the preparation and submission of a Storm Water Pollution Protection Plan (SWPPP), or a Water Pollution Control Program (WPCP), and the approval of same by the appropriate reviewing authority prior to the start of any work. Information on the requirements may also be reviewed on the Department's Construction Website at:

<http://www.dot.ca.gov/hq/construc/stormwater>

25. NAME of APPLICANT or ORGANIZATION (Print or Type)

City of Torrance, Public Works Department (c/o: Lubna Arikat)

E-MAIL ADDRESS

LArikat@TorranceCA.gov

ADDRESS of APPLICANT or ORGANIZATION WHERE PERMIT IS TO BE MAILED (Include City and Zip Code)

20500 Madrona Avenue, Torrance, California 90503

PHONE NUMBER

(310) 618-3066

FAX NUMBER

(310) 781-6902

26. NAME of AUTHORIZED AGENT / ENGINEER (Print or Type)

IS LETTER OF AUTHORIZATION ATTACHED?

☐ YES☐ NO

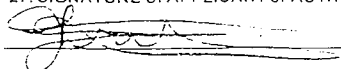
E-MAIL ADDRESS

ADDRESS of AUTHORIZED AGENT / ENGINEER (Include City and Zip Code)

PHONE NUMBER

FAX NUMBER

27. SIGNATURE of APPLICANT or AUTHORIZED AGENT



28. PRINT OR TYPE NAME

Lubna Arikat

29. TITLE

Associate Engineer

30. DATE

5/9/2013

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STANDARD ENCROACHMENT PERMIT APPLICATION

TR-0100 (REV. 07/2007)

PERMIT NO.

713-NMC-1065

WORK ORDER/REFERENCE NUMBER

FEE CALCULATION -- FOR CALTRANS USE

☐ CASH ☐ CREDIT CARD NAME ON CARD _____ PHONE NUMBER _____

☐ CHECK NUMBER _____ NAME ON CHECK _____ PHONE NUMBER _____

☒ EXEMPT ☐ PROJECT EA _____ ☐ DEFERRED BILLING (Utility)

CALCULATED BY	(1) <u>A. HARRIS</u>	(2) <u>J. L. HARRIS</u>			
REVIEW	1. FEE / DEPOSIT	DATE	2. FEE / DEPOSIT	DATE	TOTAL FEE / DEPOSIT
1. <u>8</u> HOURS @ \$ <u>82</u>	\$ <u>656</u>		\$ <u>1128</u>		\$ _____
2. <u>14</u> HOURS @ \$ <u>82</u>					\$ _____
INSPECTION	1. FEE / DEPOSIT	DATE	2. FEE / DEPOSIT	DATE	TOTAL FEE / DEPOSIT
1. <u>12</u> HOURS @ \$ <u>82</u>	\$ <u>984</u>		\$ _____		\$ _____
2. _____ HOURS @ \$ _____			\$ _____		\$ _____
FIELD WORK					
_____ HOURS @ \$ _____	\$ _____		\$ _____		\$ _____
EQUIPMENT & MATERIALS	DEPOSIT	DATE	DEPOSIT	DATE	DEPOSIT
	\$ _____		\$ _____		\$ _____
CASH DEPOSIT IN LIEU OF BOND					
	\$ _____		\$ _____		\$ _____
TOTAL COLLECTED	\$ <u>1640</u>		\$ <u>1128</u>		
CASHIER'S INITIALS	<u>Exempt</u>		<u>Exempt</u>		\$ _____

* The current hourly rate is set annually by Headquarters Accounting. District Office staff do not have authority to modify this rate.

PERFORMANCE BOND	<input type="checkbox"/>	DATE	AMOUNT \$
PAYMENT BOND	<input type="checkbox"/>	DATE	AMOUNT \$
LIABILITY INSURANCE REQUIRED?	<input type="checkbox"/> YES <input type="checkbox"/> NO		AMOUNT \$

RECEIVED
 11/11/05
 OFFICE OF PERMITS

STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION
ENCROACHMENT PERMIT GENERAL PROVISIONS
TR-0045 (REV. 05/2007)

1. **AUTHORITY:** The Department's authority to issue encroachment permits is provided under, Div. 1, Chpt. 3, Art. 1, Sect. 560 to 734 of the Streets and Highways Code.
2. **REVOCATION:** Encroachment permits are revocable on five days notice unless otherwise stated on the permit and except as provided by law for public corporations, franchise holders, and utilities. These General Provisions and the Encroachment Permit Utility Provisions are subject to modification or abrogation at any time. Permittees' joint use agreements, franchise rights, reserved rights or any other agreements for operating purposes in State highway right of way are exceptions to this revocation.
3. **DENIAL FOR NONPAYMENT OF FEES:** Failure to pay permit fees when due can result in rejection of future applications and denial of permits.
4. **ASSIGNMENT:** No party other than the permittee or permittee's authorized agent is allowed to work under this permit.
5. **ACCEPTANCE OF PROVISIONS:** Permittee understands and agrees to accept these General Provisions and all attachments to this permit, for any work to be performed under this permit.
6. **BEGINNING OF WORK:** When traffic is not impacted (see Number 35), the permittee shall notify the Department's representative, two (2) days before the intent to start permitted work. Permittee shall notify the Department's Representative if the work is to be interrupted for a period of five (5) days or more, unless otherwise agreed upon. All work shall be performed on weekdays during regular work hours, excluding holidays, unless otherwise specified in this permit.
7. **STANDARDS OF CONSTRUCTION:** All work performed within highway right of way shall conform to recognized construction standards and current Department Standard Specifications, Department Standard Plans High and Low Risk Facility Specifications, and Utility Special Provisions. Where reference is made to "Contractor and Engineer," these are amended to be read as "Permittee and Department representative."
8. **PLAN CHANGES:** Changes to plans, specifications, and permit provisions are not allowed without prior approval from the State representative.
9. **INSPECTION AND APPROVAL:** All work is subject to monitoring and inspection. Upon completion of work, permittee shall request a final inspection for acceptance and approval by the Department. The local agency permittee shall not give final construction approval to its contractor until final acceptance and approval by the Department is obtained.
10. **PERMIT AT WORKSITE:** Permittee shall keep the permit package or a copy thereof, at the work site and show it upon request to any Department representative or law enforcement officer. If the permit package is not kept and made available at the work site, the work shall be suspended.
11. **CONFLICTING ENCROACHMENTS:** Permittee shall yield start of work to ongoing, prior authorized, work adjacent to or within the limits of the project site. When existing encroachments conflict with new work, the permittee shall bear all cost for rearrangements, (e.g., relocation, alteration, removal, etc.).
12. **PERMITS FROM OTHER AGENCIES:** This permit is invalidated if the permittee has not obtained all permits necessary and required by law, from the Public Utilities Commission of the State of California (PUC), California Occupational Safety and Health Administration (Cal-OSHA), or any other public agency having jurisdiction.
13. **PEDESTRIAN AND BICYCLIST SAFETY:** A safe minimum passageway of 4' shall be maintained through the work area at existing pedestrian or bicycle facilities. At no time shall pedestrians be diverted onto a portion of the street used for vehicular traffic. At locations where safe alternate passageways cannot be provided, appropriate signs and barricades shall be installed at the limits of construction and in advance of the limits of construction at the nearest crosswalk or intersection to detour pedestrians to facilities across the street. Attention is directed to Section 7-1.09 Public Safety of the Department Standard Specifications.
14. **PUBLIC TRAFFIC CONTROL:** As required by law, the permittee shall provide traffic control protection warning signs, lights, safety devices, etc., and take all other measures necessary for traveling public's safety. While providing traffic control, the needs and control of all road users [motorists, bicyclists and pedestrians, including persons with disabilities in accordance with the Americans with Disabilities Act of 1990 (ADA)] shall be an essential part of the work activity.

Day and night time lane closures shall comply with the California Manual on Uniform Traffic Control Devices (Part 6, Temporary Traffic Control), Standard Plans, and Standard Specifications for traffic control systems. These General Provisions are not intended to impose upon the permittee, by third parties, any duty or standard of care, greater than or different from, as required by law.
15. **MINIMUM INTERFERENCE WITH TRAFFIC:** Permittee shall plan and conduct work so as to create the least possible inconvenience to the traveling public; traffic shall not be unreasonably delayed. On conventional highways, permittee shall place properly attired flagger(s) to stop or warn the traveling public in compliance with the California Manual on Uniform Traffic Control Devices (Chapter 6E, Flagger Control).
16. **STORAGE OF EQUIPMENT AND MATERIALS:** The storage of equipment or materials is not allowed within State highway right-of-way, unless specified within the Special Provisions of this specific encroachment permit. If Encroachment Permit Special Provisions allow for the storage of equipment or materials within the State right of way, the equipment and material storage shall comply with Standard Specifications, Standard Plans, Special Provisions, and the Highway Design Manual. The clear recovery zone widths must be followed and are the minimum desirable for the type of facility indicated below: freeways and expressways - 30', conventional highways (no curbs) - 20', conventional highways (with curbs) - 15'. If a fixed object cannot be eliminated, moved outside the clear recovery zone, or modified to be made yielding, it should be shielded by a guardrail or a crash cushion.
17. **CARE OF DRAINAGE:** Permittee shall provide alternate drainage for any work interfering with an existing drainage facility in compliance with the Standard Specifications, Standard Plans and/or as directed by the Department's representative.
18. **RESTORATION AND REPAIRS IN RIGHT OF WAY:** Permittee is responsible for restoration and repair of State highway right of way resulting from permitted work (State Streets and Highways Code, Sections 670 et seq.).

19. **RIGHT OF WAY CLEAN UP:** Upon completion of work, permittee shall remove and dispose of all scraps, brush, timber, materials, etc. off the right of way. The aesthetics of the highway shall be as it was before work started.
20. **COST OF WORK:** Unless stated in the permit, or a separate written agreement, the permittee shall bear all costs incurred for work within the State right of way and waives all claims for indemnification or contribution from the State.
21. **ACTUAL COST BILLING:** When specified in the permit, the Department will bill the permittee actual costs at the currently set hourly rate for encroachment permits.
22. **AS-BUILT PLANS:** When required, permittee shall submit one (1) set of folded as-built plans within thirty (30) days after completion and approval of work in compliance with requirements listed as follows:
1. Upon completion of the work provided herein, the permittee shall send one vellum or paper set of As-Built plans, to the State representative. Mylar or paper sepia plans are not acceptable.
 2. All changes in the work will be shown on the plans, as issued with the permit, including changes approved by Encroachment Permit Rider.
 3. The plans are to be stamped or otherwise noted AS-BUILT by the permittee's representative who was responsible for overseeing the work. Any original plan that was approved with a State stamp, or Caltrans representative signature, shall be used for producing the As-Built plans.
 4. If As-Built plans include signing or striping, the dates of signing or striping removal, relocation, or installation shall be shown on the plans when required as a condition of the permit. When the construction plans show signing and striping for staged construction on separate sheets, the sheet for each stage shall show the removal, relocation or installation dates of the appropriate staged striping and signing.
 5. As-Built plans shall contain the Permit Number, County, Route, and Post Mile on each sheet.
 6. Disclaimer statement of any kind that differ from the obligations and protections provided by Sections 6735 through 6735.6 of the California Business and Professions Code, shall not be included on the As-Built plans. Such statements constitute non-compliance with Encroachment Permit requirements, and may result in the Department of Transportation retaining Performance Bonds or deposits until proper plans are submitted. Failure to comply may also result in denial of future permits, or a provision requiring a public agency to supply additional bonding.
23. **PERMITS FOR RECORD PURPOSES ONLY:** When work in the right of way is within an area under a Joint Use Agreement (JUA) or a Consent to Common Use Agreement (CCUA), a fee exempt permit is issued to the permittee for the purpose of providing a notice and record of work. The Permittee's prior rights shall be preserved without the intention of creating new or different rights or obligations. "Notice and Record Purposes Only" shall be stamped across the face of the permit.
24. **BONDING:** The permittee shall file bond(s), in advance, in the amount set by the Department. Failure to maintain bond(s) in full force and effect will result in the Department stopping of all work and revoking permit(s). Bonds are not required of public corporations or privately owned utilities, unless permittee failed to comply with the provision and conditions under a prior permit. The surety company is responsible for any latent defects as provided in California Code of Civil Procedures, Section 337.15. Local agency permittee shall comply with requirements established as follows: In recognition that project construction work done on State property will not be directly funded and paid by State, for the purpose of protecting stop notice claimants and the interests of State relative to successful project completion, the local agency permittee agrees to require the construction contractor furnish both a payment and performance bond in the local agency's name with both bonds complying with the requirements set forth in Section 3-1.02 of State's current Standard Specifications before performing any project construction work. The local agency permittee shall defend, indemnify, and hold harmless the State, its officers and employees from all project construction related claims by contractors and all stop notice or mechanic's lien claimants. The local agency also agrees to remedy, in a timely manner and to State's satisfaction, any latent defects occurring as a result of the project construction work.
25. **FUTURE MOVING OF INSTALLATIONS:** Permittee understands and agrees to relocate a permitted installation upon notice by the Department. Unless under prior property right or agreement, the permittee shall comply with said notice at his sole expense.
26. **ARCHAEOLOGICAL/HISTORICAL:** If any archaeological or historical resources are revealed in the work vicinity, the permittee shall immediately stop work, notify the Department's representative, retain a qualified archaeologist who shall evaluate the site, and make recommendations to the Department representative regarding the continuance of work.
27. **PREVAILING WAGES:** Work performed by or under a permit may require permittee's contractors and subcontractors to pay appropriate prevailing wages as set by the Department of Industrial Relations. Inquiries or requests for interpretations relative to enforcement of prevailing wage requirements are directed to State of California Department of Industrial Relations, 525 Golden Gate Avenue, San Francisco, California 94102.
28. **RESPONSIBILITY FOR DAMAGE:** The State of California and all officers and employees thereof, including but not limited to the Director of Transportation and the Deputy Director, shall not be answerable or accountable in any manner for injury to or death of any person, including but not limited to the permittee, persons employed by the permittee, persons acting in behalf of the permittee, or for damage to property from any cause. The permittee shall be responsible for any liability imposed by law and for injuries to or death of any person, including but not limited to the permittee, persons employed by the permittee, persons acting in behalf of the permittee, or for damage to property arising out of work, or other activity permitted and done by the permittee under a permit, or arising out of the failure on the permittee's part to perform his obligations under any permit in respect to maintenance or any other obligations, or resulting from defects or obstructions, or from any cause whatsoever during the progress of the work, or other activity or at any subsequent time, work or other activity is being performed under the obligations provided by and contemplated by the permit.
- The permittee shall indemnify and save harmless the State of California, all officers, employees, and State's contractors, thereof, including but not limited to the Director of Transportation and the Deputy Director, from all claims, suits or actions of every name, kind and description brought for or on account of injuries to or death of any person, including but not limited to the permittee, persons employed by the permittee, persons acting in behalf of the permittee and the public, or damage to property resulting from the performance of work or other activity under the permit, or arising out of the failure on the permittee's part to perform his obligations under any permit in respect to maintenance or any other obligations, or resulting from defects or obstructions, or from any cause whatsoever during the progress of the work, or other activity or at any subsequent time, work or other activity is being performed under the obligations provided by and contemplated by the permit, except as otherwise provided by statute.

The duty of the permittee to indemnify and save harmless includes the duties to defend as set forth in Section 2778 of the Civil Code. The permittee waives any and all rights to any type of expressed or implied indemnity against the State, its officers, employees, and State contractors. It is the intent of the parties that the permittee will indemnify and hold harmless the State, its officers, employees, and State's contractors, from any and all claims, suits or actions as set forth above regardless of the existence or degree of fault or negligence, whether active or passive, primary or secondary, on the part of the State, the permittee, persons employed by the permittee, or acting on behalf of the permittee.

For the purpose of this section, "State's contractors" shall include contractors and their subcontractors under contract to the State of California performing work within the limits of this permit.

29. **NO PRECEDENT ESTABLISHED:** This permit is issued with the understanding that it does not establish a precedent.

30. **FEDERAL CIVIL RIGHTS REQUIREMENTS FOR PUBLIC ACCOMMODATION:**

A. The permittee, for himself, his personal representative, successors in interest, and assigns as part of the consideration hereof, does hereby covenant and agree that:

1. No person on the grounds of race, color, or national origin shall be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities.
2. That in connection with the construction of any improvements on said lands and the furnishings of services thereon, no discrimination shall be practiced in the selection and retention of first-tier subcontractors in the selection of second-tier subcontractors.
3. That such discrimination shall not be practiced against the public in their access to and use of the facilities and services provided for public accommodations (such as eating, sleeping, rest, recreation), and operation on, over, or under the space of the right of way.
4. That the permittee shall use the premises in compliance with all other requirements imposed pursuant to Title 15, Code of Federal Regulations, Commerce and Foreign Trade, Subtitle A, Office of the Secretary of Commerce, Part 8 (15 C.F.R. Part 8) and as said Regulations may be amended.
5. That in the event of breach of any of the above nondiscrimination covenants, the State shall have the right to terminate the permit and to re-enter and repossess said land and the land and the facilities thereon, and hold the same as if said permit had never been made or issued.

31. **MAINTENANCE OF HIGHWAYS:** The permittee agrees, by acceptance of a permit, to properly maintain any encroachment. This assurance requires the permittee to provide inspection and repair any damage, at permittee's expense, to State facilities resulting from the encroachment.

32. **SPECIAL EVENTS:** In accordance with subdivision (a) of Streets and Highways Code Section 682.5, the Department of Transportation shall not be responsible for the conduct or operation of the permitted activity, and the applicant agrees to defend, indemnify, and hold harmless the State and the city or county against any and all claims arising out of any activity for which the permit is issued.

Permittee understands and agrees that it will comply with the obligations of Titles II and III of the Americans with Disabilities Act of 1990 in the conduct of the event, and further agrees to indemnify and save harmless the State of California, all officers and employees thereof, including but not limited to the Director of Transportation, from any claims or liability arising out of or by virtue of said Act.

33. **PRIVATE USE OF RIGHT OF WAY:** Highway right of way shall not be used for private purposes without compensation to the State.

The gifting of public property use and therefore public funds is prohibited under the California Constitution, Article 16.

34. **FIELD WORK REIMBURSEMENT:** Permittee shall reimburse State for field work performed on permittee's behalf to correct or remedy hazards or damaged facilities, or clear debris not attended to by the permittee.

35. **NOTIFICATION OF DEPARTMENT AND TMC:** The permittee shall notify the Department's representative and the Transportation Management Center (TMC) at least 7 days before initiating a lane closure or conducting an activity that may cause a traffic impact. A confirmation notification should occur 3 days before closure or other potential traffic impacts. In emergency situations when the corrective work or the emergency itself may affect traffic, TMC and the Department's representative shall be notified as soon as possible.

36. **SUSPENSION OF TRAFFIC CONTROL OPERATION:** The permittee, upon notification by the Department's representative, shall immediately suspend all lane closure operations and any operation that impedes the flow of traffic. All costs associated with this suspension shall be borne by the permittee.

37. **UNDERGROUND SERVICE ALERT (USA) NOTIFICATION:** Any excavation requires compliance with the provisions of Government Code Section 4216 et. seq., including, but not limited to notice to a regional notification center, such as Underground Service Alert (USA). The permittee shall provide notification at least 48 hours before performing any excavation work within the right of way.

1. GENERAL: The purpose of these Special Provisions is to provide the Permittee with specifications for water pollution control to minimize, prevent, or control the discharge of material into the air, surface waters, groundwater, and storm sewers owned by the State or local agencies. These provisions are not intended to take the place of the Caltrans Water Pollution Control Program (WPCP) for projects where soil disturbance from work activities less than one acre, or work activities of one acre or more subject to the preparation of the Caltrans Storm Water Pollution Prevention Plan (SWPPP) that would require a waste discharge identification number or coverage under the California Construction General Permit (*Order No. 2009-0009-DWQ, NPDES No CAS000002*). The Permittee shall comply with the following Special Provisions and the direction of the State Representative:

2. NPDES REQUIREMENTS: The Permittee shall be responsible for full compliance with the Caltrans Storm Water Program and the Caltrans National Pollutant Discharge Elimination System (NPDES) Permit requirements. It is the Permittee's responsibility to install, inspect, and repair or maintain facilities and devices used for water pollution control practices before performing daily work activities. Installation and maintenance responsibilities on the job site include: 1) soil stabilization materials in work areas that are inactive or prior to storm events, 2) water pollution control devices to control sediment and erosion, 3) implementation of spill and leak prevention procedures for chemical and hazardous substances stored on the job site, 4) material storage, 5) stockpile management, 6) waste management, 7) non-stormwater management, 8) water conservation, and 9) illicit connection, illegal discharge detection and reporting. The Permittee shall report to the state representative when discharges enter into receiving waters or drainage systems or when discharges could be a cause or a threat for water pollution. The Permittee shall also control illicit discharges or illegal dumping prior to start of daily work schedule. Copies of written notices or orders from the Regional Water Quality Control Board or other regulatory agency shall be provided to the State representative within 48 hours of reported activity. For additional information on storm water compliance, visit the State Water Resources Control Boards storm water Website at http://www.waterboards.ca.gov/water_issues/programs/stormwater

3. RESPONSIBILITY FOR DEBRIS REMOVAL: The Permittee shall be responsible for preventing all dirt, trash, debris, and other construction waste from entering storm drains, local creeks, or any other bodies of water.

4. SPOILS AND RESIDUE: The Permittee shall vacuum or sweep any saw-cut spoils, debris, residue, etc. No spoils, debris, residue, etc. shall be washed into a drainage system.

5. SWEEPING: Sweep paved roads at construction entrance and exit locations and surrounding paved areas daily within the job site during: 1) clearing and grubbing, 2) earthwork, 3) trenching, 4) soil disturbance, 5) pavement grinding and/or cutting, and 6) after observing tracking of material into the State property. Keep dust to a minimum during sweeping activities. Use vacuum whenever dust generation is excessive or sediment pickup is ineffective. Roadways or work areas shall not be washed down with water. Street sweeping operations must conform to Section 13 Water Pollution Control of the State of California standard specifications for construction (most current version)
<http://www.dot.ca.gov/hq/esc/oe/specifications/SSPs/2010-SSPs/>

6. VEHICLES AND EQUIPMENT: Permittee shall prevent all vehicles, equipment, etc. from leakage or mud tracking onto roadways.

7. MAINTENANCE AND FUELING OF VEHICLES AND EQUIPMENT: Maintenance and fueling of equipment shall not result in any pollution at the job site. The Permittee shall immediately clean up spills, and properly dispose of contaminated soil and materials.

8. CLEANING VEHICLES AND EQUIPMENT: The Permittee shall clean all equipment within a bermed area or over a drip pan large enough to prevent run-off. No soaps, solvents, degreasers, etc shall be used in State right of way. Any water from this operation shall be collected and disposed of at an appropriate site. Fueling, washing, maintaining and washing vehicles or equipment in outside areas must be performed at least 100 feet from concentrated flows of storm water, drainage courses, and storm drain inlets if within a flood plain, otherwise at least 50 feet if outside the floodplain.

9. DIESEL FUELS: The use of diesel fuel as a form-oil or solvent is not allowed.

10. WEATHER CONDITIONS AT WORKSITE: Any activity that would generate fine particles or dust that could be transported off site by stormwater shall be performed during dry weather.

11. HOT MIX ASPHALT: Runoff from washing hot mix asphalt shall not enter into any drainage conveyances.

12. PROTECTION OF DRAINAGE FACILITIES: The Permittee shall protect/cover gutters, ditches, drainage courses, and inlets with gravel bags, fiber rolls, State approved fabric filters, etc., to the satisfaction of the State representative during grading, paving, saw-cutting, etc. and materials must conform to Section 13-6.02 Materials for Water Pollution Control of the State of California standard specifications for construction (most current version). No such protection measures shall cause an obstruction to the traveling public. The Permittee shall implement spill and leak prevention procedures for chemicals and hazardous substances stored on the job site in accordance to section 13-4.03B(1-3) Spill Prevention and Control, Water Pollution Control, of the State of California standard specifications for construction (2010 version).

13. PAINT: Rinsing of painting equipment and materials is not permitted in state right-of-way. When thoroughly dry, dispose of the following as solid waste: dry latex paint, paint cans, used brushes, rags, gloves, absorbent materials, and drop cloths. Oil based paint sludge and unusable thinner shall be disposed of at an approved hazardous waste site.

14. CONSTRUCTION MATERIALS: Stockpile of all construction materials, including, but not limited to; pressure treated wood, asphalt concrete, cold mix asphalt concrete, concrete, grout, cement containing premixes, and mortar, shall conform to section 13-4.03C Stockpile Management, Water Pollution Control, of the State of California standard specifications for construction (2010 version). Stored materials shall not reach a storm drain.

15. CONCRETE EQUIPMENT: Concrete equipment shall be washed in a designated washing area that prevents effluent from discharging to drainage conveyances.

STORM WATER SPECIAL PROVISIONS for MINIMAL or NO IMPACT

TR-0400 (Rev 10/2011)

16. EXISTING VEGETATION: Established existing vegetation is the best form of erosion control. Minimize disturbance to existing vegetation. Damaged or removed vegetation shall be replaced as directed by the State Representative.

17. SOIL DISTURBANCE: Soil disturbing activities shall be avoided during the wet weather season. If construction activities during wet weather are allowed in your permit, all necessary erosion control and soil stabilization measures shall be implemented.

18. SLOPE STABILIZATION AND SEDIMENT CONTROL: In cases where slopes are disturbed during construction, soil shall be secured with soil stabilization and sediment control measures. Fiber rolls or silt fences may be required downslope until permanent soil stabilization is established. Remove the accumulated sediment whenever the sediment accumulates to 1/3 of the linear sediment barrier height.

19. STOCKPILES: Sand, dirt, and similar materials shall be stored at least 100 feet from concentrated flows of storm water, drainage courses, and storm drain inlets if within a flood plain, otherwise at least 50 feet if outside the floodplain, and shall be covered and protected with a temporary perimeter sediment barrier.

20. DISCOVERY OF CONTAMINATION: The State Representative shall be notified in case any unusual discoloration, odor, or texture of ground water, is found in excavated material or if abandoned, underground tanks, pipes, or buried debris are encountered.

21. SANITARY AND SEPTIC WASTE: Do not bury or discharge wastewater from a sanitary or septic system within the highway. Properly connected sewer facilities are free from leaks. With State Representative approval place portable sanitary facility at least 50 feet away from storm drains, receiving waters, and flow lines. Permittee must comply with local health agency provisions when using an on-site disposal system.

22. LIQUID WASTE: Prevent job site liquid waste from entering storm drain systems and receiving waters. Drilling slurries, grease or oil-free waste water or rinse water, dredging, wash water or rinse water running off a surface or other nonstorm water liquids not covered under separate waste water permits shall be held in structurally sound, leak-proof containers, such as portable bins or portable tanks. Store containers at least 50 feet away from moving vehicles and equipment. Liquid waste may require testing to determine hazardous material content prior to disposal.

23. WATER CONTROL AND CONSERVATION: Manage water use in a way that will prevent erosion and the discharge of pollutants into storm drain systems and receiving waters. Direct runoff water, including water from water line repair from the job site to areas where it can infiltrate into the ground. Direct water from off-site sources around the job site or from contact with job site water.

24. PILE DRIVING: Keep spill kits and cleanup materials at pile driving locations. Park pile driving equipment over drip pans, absorbent pads, or plastic sheeting with absorbent material, and away from storm water run-on when not in use.

25. DEWATERING: Dewatering consists of discharging accumulated storm water, groundwater, or surface water from excavations or temporary containment facilities. All dewatering

operations shall comply with the latest Caltrans guidelines. Any effluent discharged into any storm water system requires approval from the Regional Water Quality Control Board. Prior to the start of dewatering, the Permittee shall provide the State Representative with a dewatering and discharge work plan that complies with section 13-4.01B Submittals, Water Pollution Control, of the State of California standard specifications for construction (2010 version). A copy of the Waste Discharge Permit and a copy of a valid WDID number issued by the Regional Board shall be provided to the State representative.

DEPARTMENT OF TRANSPORTATION - DISTRICT 7
SPECIAL PROVISION "A"

(attached to all Permits) REV 05/11/05 (Page 1 of 2)

1. Should there be any discrepancy between the terms of this permit and the plans attached hereto, the State permit inspector will determine which shall prevail.
2. Except for installing, maintaining and removing traffic control devices, whenever work is performed or equipment is operated in the following work areas, the permittee shall close the adjacent traffic lane unless otherwise provided in the permit:

Approach speed of public traffic
(posted limit) km/h

Work Areas

Over 45mph (70km/h)

Within 6' (1.8m) of a traffic lane

45mph (70km/h) and Under

Within 3' (0.9m) of a traffic lane

3. Any work authorized by this permit which requires traffic diversion and/or traffic interruption, including sidewalks and bike paths, shall be approved by the State permit inspector.
4. Unless noted in the permit or otherwise authorized by the State permit inspector, the normal working hours of permitted traffic control shall be limited to the hours of 0900 to 1500 Monday through Friday. Traveled way needs to be open for public traffic at all other times, including designated legal holidays and when construction is not actively in progress.

Designated legal holidays: January 1, the third Monday in January, the third Monday in February, the last Monday in May, July 4, the first Monday in September, November 11, the fourth Thursday in November and December 25.

5. The permittee shall provide adequate protection of traffic in accordance with the current traffic control requirements of the Caltrans Standard Specifications Section 7-1.08 (Public Convenience), Section 7-1.09 (Public Safety) and Section 12 (Construction Area Traffic Control Devices).
6. Permittee shall be responsible for notifying their contractor and all subcontractors of the provisions of this permit. The permittee's contractors/subcontractors are required to have the signed original permit (and double permit when required) or a copy with all special provisions and permit plans, at the job-site, at all times while work is being conducted.
7. Caltrans is not a member or subscriber of USA (Underground Service Alert); Caltrans underground facilities are not located by USA. The permittee and/or permittee's contractor assumes the responsibility for the payment of all costs incurred by the State in repairing facilities damaged during construction. Requests for relocation of facilities for the permittee's convenience must be made in writing with the permittee assuming all costs.
8. All conflicting lane lines and pavement markings shall be removed by sandblasting, pellet blasting, grinding or air blasting as approved by the State permit inspector. Traffic tape may be used for the temporary delineation and covering of lane lines/pavement markings as approved by the State permit inspector.
9. A survey of the permittee's property may be required to verify compliance with approved plans at no cost to the State.

SPECIAL PROVISION "A"

REV 05/11/05 (Page 2 of 2)

10. Should work take place between October 15 and April 15, permittee shall obtain a long-range clear weather forecast before breaking into a main line storm drain. Constructions of facilities connecting into the mainline will be permitted only during a clear weather forecast that is acceptable to the State permit inspector. Once operations are initiated, the work shall be conducted in a continuous manner until completed.
11. Abandoned pipes shall be sealed at both ends with 8" (200mm) brick and mortar or 6" (150mm) thick concrete plug. When facilities are allowed to be abandoned in place, backfilling with sand or other measures may be required. This is mandatory for all conduits 12" (300mm) in diameter or larger.
12. In the event that all work is within the working area of a State highway construction project, no work shall be started until all arrangements have been made with the State contractor and State resident engineer, to avoid any and all conflict or delay to the State contractor.
13. Permittee shall fully conform to the requirements of the Caltrans statewide NPDES Storm Water Permit, Order No. 99-06-DWQ. NPDES No. CAS000003 was adopted by the State Water Resources Control Board on July 15, 1999. The permittee shall also conform to the requirements of the General NPDES Permit for Construction Activities and any subsequent General Permit in effect at the time of issuance of this encroachment permit. These permits regulate storm water and non-storm water discharges associated with year round construction or special event encroachment activities.
14. The permittee shall utilize best management practices (BMP's) that conform to the requirements of the most current edition of "Caltrans Storm Water Quality Handbooks, Construction Site Best Management Practices to prevent the transport of pollutants and/or erosive soils to storm drains or to a body of water. The permittee shall be solely responsible to prepare, in accord with good management practices, a Storm Water Pollution Prevention Plan or Water Pollution Control Plan which will satisfy the Regional Water Quality Control Board if applicable. Permittee shall be responsible for reimbursement of fines levied against Caltrans due to permittee's failure to comply with the Regional Water Quality Control Board rules and regulations within the State's right of way.

Permittee shall provide and install erosion control measures as directed by the State permit inspector or Caltrans storm water coordinator. Permittee shall be responsible to mitigate for storm water siltation within or entering the State right of way as a result of the proposed construction. Erosion control measures may consist of (but not limited to) gravel bags, straw bales and silt fencing.

This Special Provision "C" is to be used as minimum specifications for excavating and backfilling within State right of way.

I. EXCAVATION WITHIN ROADWAY:

1. Pipes crossing the roadway shall normally be jacked or otherwise forced underneath pavement without disturbing same. Pavement or roadway shall not be cut unless specifically allowed by the permit. Service pipes will not be allowed inside of culverts used as drainage structures.

2. Permittee shall comply with all State and local safety codes relative to safety measures for protection of workers in trenches and excavations (State of California Administrative Code, Title 8).

3. All excavations shall be shored and/or tight sheeted in accordance with Cal OSHA requirements.

4. Work shall not be permitted in confined spaces until all possible hazardous gases and vapors have been purged. Workers shall be equipped with adequate blowers, safety harnesses, hard hats, ropes, ladders and any other equipment necessary. When working in confined spaces, Cal OSHA requirements shall be adhered to.

5. Service connections shall be installed perpendicular to the center line of the State highway.

6. When the permit authorizes installation by open-cut method, not more than one lane of the highway shall be open-cut at any one time unless otherwise approved by the State permit inspector. After the pipe is placed in the open section, the trench is to be backfilled and temporary repairs made or bridged in accordance with the specifications and this portion shall be opened to traffic before the pavement is cut for the next section.

Temporary asphalt pavement patches, a minimum of 75mm (3") thick, shall be placed and maintained in a smooth riding surface free of humps or depressions.

7. Hazardous pipeline potholing clause (petroleum distillates, gas, electricity, chlorine, etc.):

The permittee shall furnish Caltrans with the results of this exploration, having the location and grade shown to within 30mm (0.1') tied to State's datum, and certified by a licensed land surveyor or civil engineer, registered in the State of California.

8. Pavement (portland cement concrete and asphalt concrete) shall be sawcut to full depth by means of a concrete saw to provide a neat

and straight edge along both sides of the trench. An unfractured pavement joint and rigid bonding of pavement replacement shall also be provided.

All residue, caused by the sawcutting, should be vacuumed or removed by other method, as approved by the State permit inspector and disposed of outside of State right of way.

9. Where the edge of the trench is within 0.6m (2') of existing curb or gutter, the pavement between the trench and the curb or gutter shall be removed and replaced.

10. A minimum lateral clearance of 1.5m (5') shall be provided between the edge of excavation and adjacent traffic lanes. Where 1.5m (5') of clearance is not provided, the excavation shall be shored. In no case shall the clearance be less than 0.9m (3').

11. Banks of open-cut trenches shall be kept as nearly vertical as possible. Trenches shall not be more than 600mm (24") wider than the outside diameter of the pipe to be laid therein, plus the necessary width to accommodate shoring.

12. All open trenches within the traveled way shall be backfilled, compacted and temporary pavement placed before the end of the working day.

Shoring and properly placed and maintained steel plates may be substituted for backfilling when authorized by the State permit inspector. See page 6 of this special provision: Temporary Steel Plate Bridging.

13. Trenches shall not be excavated more than 90m (300') in advance of pipe laying and shall not be left open more than 60m (200') in the rear thereof.

14. Tree roots over 50mm (2") in diameter shall not be cut unless otherwise authorized and approved by the State permit inspector.

15. If it becomes impractical to protect all roots over 50mm (2") in diameter or more than 40% of all roots will be damaged, permittee or permittee's contractor shall make special arrangements with the State permit inspector to remove, relocate or replace subject trees.

16. Manholes and vaults shall not be constructed within 6m (20') of any parkway tree.

II. BACKFILL

1. Structural backfill within the existing or proposed roadbed area

DEPARTMENT OF TRANSPORTATION- DISTRICT 7
SPECIAL PROVISION "C" - EXCAVATION & BACKFILL

7-96

page 3

shall be compacted in horizontal layers not exceeding 200mm (8") in thickness using approved hand, pneumatic or mechanical type tampers to obtain a relative compaction of 95% using California Test Method 216F. Structural backfill outside of slope lines and not beneath the roadbed shall be compacted to a relative compaction of 90%. Backfill material shall have a sand equivalent value of not less than 20 as determined by California Test Method 217F, if the excavation falls within the existing or proposed roadbed. Consolidation by ponding and jetting will be permitted when, as determined by the inspector, the backfill is of such character that it will be self-draining when compacted, and the foundation materials will not be softened or be otherwise damaged by the applied water and no damage from hydrostatic pressure will result. Ponding and jetting of the upper 1.2m (4') below finished grade is prohibited. When ponding and jetting is permitted, material for use as structural backfill shall be placed and compacted in layers not exceeding 1.2m (4 ft) in thickness. Ponding and jetting methods shall be supplemented by the use of vibratory or other compaction equipment when necessary to obtain the required compaction.

2. Backfill material may consist of 83kg/m³ (1-1/2 sack/CY) sand-cement slurry. Accelerator (ie. calcium chloride) may be used when authorized by the State permit inspector. Slurry shall be vibrated in accordance with Section 40-107A of the Caltrans Standard Specifications as required by the State permit inspector.

3. Where it is necessary to tunnel under existing curb and gutter, sidewalk, or underground facilities, the void shall be backfilled and vibrated with sand-cement slurry.

4. By accepting this permit, the permittee agrees to pay all laboratory costs in connection with the necessary tests which may be required by the State permit inspector to determine the sand equivalent value of the backfill material or the trench backfill compaction. The frequency of such tests shall be at a minimum of one test per 450m (1500 ft) of continuous trench, or at locations determined by the State permit inspector, at elevations of not less than every 0.6m (2 ft) of backfill depth. A minimum of one test is required for each trench.

5. Prior to starting the trench backfill, the permittee shall make the necessary arrangements with a Caltrans certified materials testing laboratory to conduct the tests with certification from a civil engineer registered in the State of California.

III. PERMANENT PAVEMENT REPAIRS

1. Repairs to PCC pavement shall be made within 5 working days of completion of backfill and shall be made of Class 2 portland cement concrete containing a minimum of 350kg/m³ (5 sack/CY). Replacement of PCC pavement shall equal existing pavement thickness. The concrete shall

be satisfactorily cured and protected from disturbance for not less than 48 hours. High early strength concrete may be required at the discretion of the permit inspector.

2. Concrete sidewalks or curbs shall be cut to the nearest score marks and replaced equal in dimensions to that removed with score marks matching existing adjacent sidewalk or curb or as directed by the State permit inspector.

3. Repairs to AC pavements shall be made within 5 working days of completion of backfill and shall be made with Type B asphalt concrete meeting State specifications.

4. Replacement of the roadway structural section (pavement, base, subbase, etc.) shall be equal or better in all respects to the thickness and materials in the best portions of the existing structural section. Minimum thicknesses shall be 150mm (6") asphalt concrete on 200mm (8") base.

IV. REQUIRED MARKERS

Underground installations of pipes, cables, and conduits may be required to have surface markings showing the location of the underground facility. When markings are required, the permittee shall submit a marking plan for approval by the State permit inspector. Markings shall not interfere with vehicular traffic.

V. CATHODIC PROTECTION

The permittee shall perform stray current interference tests on underground utilities under cathodic protection. The permittee shall notify Caltrans prior to the tests and perform any necessary corrective measures recommended by Caltrans.

VI. HIGHWAY STRUCTURES

The permittee shall pay for any damage to highway structures caused by gas mains or other pipe lines carrying flammable. This includes, but is not limited to, explosion or fire resulting from such installations regardless of causation. If repairs are not feasible, complete replacement of structure may be necessary. The permittee will indemnify and hold the State harmless from any and all claims for injury to persons or damage to property resulting from such installation.

VII. TUNNELING

Except in effecting emergency repairs on utilities, no tunneling will be permitted. Major installations may be exempt as specifically set forth

by the permit.

VIII. UNDERGROUND FACILITIES

All underground facilities shall be in accordance with the Caltrans "Manual on High and Low Risk Underground Facilities Within Highway Rights of Way". Unless otherwise authorized, pipes and conduits shall be installed in a manner to provide a minimum clearance of 1.1m (42") between the top of pipe and finished surface.

TEMPORARY SHEET PLATE BRIDGING

This sheet shall be used as a minimum requirement when steel plates are allowed for use on State Highways. Steel plate bridging on freeways is not allowed.

METHOD 1

The pavement shall be cold planed to a depth equal to the thickness of the plate(s) and to a width and length equal to the dimensions of the plate. Tack welding of plates may be required.

METHOD 2

Steel plates that are allowed to set on top of the road surface may have the approach and ending plates secured to the roadway by 2 -25mm (1") dowels placed through predrilled corners of the plate or by 4-25mm (1") dowels placed at the edge of plate and set a minimum of 150mm (6") into the pavement. Intermediate plates are butted and tack welded to each other. Fine graded asphalt concrete shall be compacted to form ramps, maximum slope 8.5% with a minimum 300mm (12") taper to cover all edges of the steel plates. When steel plates are removed, the dowel holes in the pavement shall be backfilled with either graded fines of asphalt concrete mix or concrete slurry.

1. Steel plate must extend a minimum of 300mm (12") beyond the edges of the trench, and shall be installed to operate with minimum noise and rocking by using adjustable cleats, shims, or other device.

2. The trench shall be adequately shored to support bridging the traffic loads.

3. The permittee shall place and maintain on the steel plate a non-skid surface having a minimum coefficient of friction equivalent to 0.35 as determined by California Test Method 342.

4. The Permittee shall be responsible for maintenance of the steel plates, shoring, and asphalt concrete ramps.

5. Unless specifically noted in the permit provisions, steel plate bridging should not exceed 4 consecutive working days in any given week.

6. Steel plate bridging shall be steel designed for HS20-44 truck loading per Caltrans Bridge Design Specifications Manual.

7. A Rough Road sign (W33), with black lettering on an orange background, may be used in advance of steel plate bridging.

DEPARTMENT OF TRANSPORTATION-- DISTRICT 7
SPECIAL PROVISION "C" - EXCAVATION & BACKFILL
7/96
page 8

8. Method 2 shall not be allowed for speeds more than 70km/hr(45mph).

The following table shows the minimum thickness of steel plate bridging required for a given trench width:

Trench Width	Minimum Plate Thickness
0.3m (1.0')	13mm (1/2")
0.45m(1.5')	19mm (3/4")
0.6m (2.0')	22mm (7/8")
0.9m (3.0')	25mm (1")
1.2m (4.0')	32mm (1 1/4")

For spans greater than 1.2m (4') a structural design shall be prepared by a registered civil engineer and approved by the State permit inspector.

DEPARTMENT OF TRANSPORTATION - DISTRICT 7
SPECIAL PROVISION "K" - SIGNS
7/96

This Special Provision "K" and its attachment are to be used as a minimum specification to erect or repair signs, awnings, marquees or canopies. Unless otherwise specified, or in the case of a more stringent specification, the Uniform Building Code, Chapter 45 shall be used as the minimum specification.

I. SIGNS, MARQUEES AND AWNINGS

1. No part of any structure or appendage thereto, except signs, shall project beyond the property line of the building site. This includes oriel windows, cornices, belt courses, and appendages such as water tables, sills, capitals, bases, and architectural projections.

2. Clearance: The minimum vertical clearance of signs from the sidewalk shall be 3.6m (12') except as shown in attached drawings. Sidewalk clearance for awnings shall conform to local standards.

3. Codes: Must be structurally adequate and conform to applicable building code and Caltrans' Outdoor Advertising Regulations.

4. Location: Support shall be outside State right of way. The overhang shall be at least 0.6m (24") back of the curb face.

5. Advertising: The wording on the sign may only identify either the owner, the goods sold or manufactured on the premises or the services rendered. Awnings may only identify the owner or place of business.

6. Lights: No flashing, rotating or intermittent lights shall be allowed except for approved public service information signs.

7. Traffic Signals: No displays shall interfere with or hide traffic signals.

8. Signs that contain red, yellow, or green lights shall not be permitted where traffic signals are in operation or are planned for installation.

9. Work shall be done in accordance with the overhead utility clearances of General Order #95 of the Public Utilities Commission.

10. Any sign erected in non-compliance with the terms of this permit constitutes an illegal encroachment, and removal will be required.

11. Signs are to be installed by the owner or a licensed outdoor advertising contractor.

12. Any repairs or changes of the sign including location must be covered by a separate permit.

DEPARTMENT OF TRANSPORTATION - DISTRICT 7
SPECIAL PROVISION "K" - SIGNS
7/96
page 2

Issuance of this permit shall not be construed as superseding or nullifying any provisions of Sections 21465 and 21466 of the California Vehicle Code, relative to unauthorized signs, signals and lights, etc.

II. MARQUEES

1. The horizontal clearance between a marquee and the curb face shall not be less than 0.6m (2').

2. A marquee projecting more than two-thirds of the distance from the property line to the curb face shall not be less than 3.6m (12') above the ground or pavement below. (See marquee drawing).

3. A marquee projecting less than two-thirds of the distance from the property line to a curb face shall not be less than 2.4m (8') above the ground or pavement below. (See marquee drawing).

4. A marquee projecting more than two-thirds of the distance from the property line to the curb face shall not exceed 7.5m (25') in length along the direction of the street.

5. The maximum height or thickness of a marquee measured vertically from its lowest to its highest point shall not exceed 0.9m (3') when the marquee projects more than two-thirds of the distance from the property line to the curb face and shall not exceed 2.7m (9') when the marquee is less than two-thirds of the distance from the property line to the curb line.

6. A marquee shall be supported entirely by the building.

7. Every roof and skylight of a marquee shall slope to the downspout which shall conduct any drainage from the marquee under the sidewalk to the curb.

8. Every marquee shall be so located as not to interfere with the operation of any exterior standpipe or to obstruct the clear passage of stairways or exits from the building or the installation or maintenance of electroliers.

III. AWNINGS

1. Awning is a temporary shelter supported entirely from the exterior wall of a building.

2. Every awning shall be collapsible, retractable, or capable of being folded against the face of the supporting building.

EXCEPTION: A fixed awning not more than 3m (10') in length may be erected over a doorway to the building.

DEPARTMENT OF TRANSPORTATION - DISTRICT 7
SPECIAL PROVISION "K" - SIGNS

7/96

page 3

3. Awnings may extend over State property not more than 2.1m (7') from the face of a supporting building but no portion shall extend nearer than 0.6m (2') to the face of the nearest curb line measured horizontally. In no case shall the awning extend over public property greater than two-thirds of the distance from the property line to the nearest curb in front of the building site.

4. All portions of any awning shall be at least 2.4m (8') above any public walkway.

EXCEPTION: In no case shall any portion of a valance be less than 2.1m (7') in height above a public way.

IV. DOORS

Doors, either fully opened or when opening, shall not project more than 0.3m (1') into State right of way.

V. COMMERCIAL SIGNS

1. Sign structures advertising the business conducted on the premises may overhang the right of way within established business districts if covered by an encroachment permit. Such displays must be structurally adequate and be attached to the building, or otherwise supported on private property.

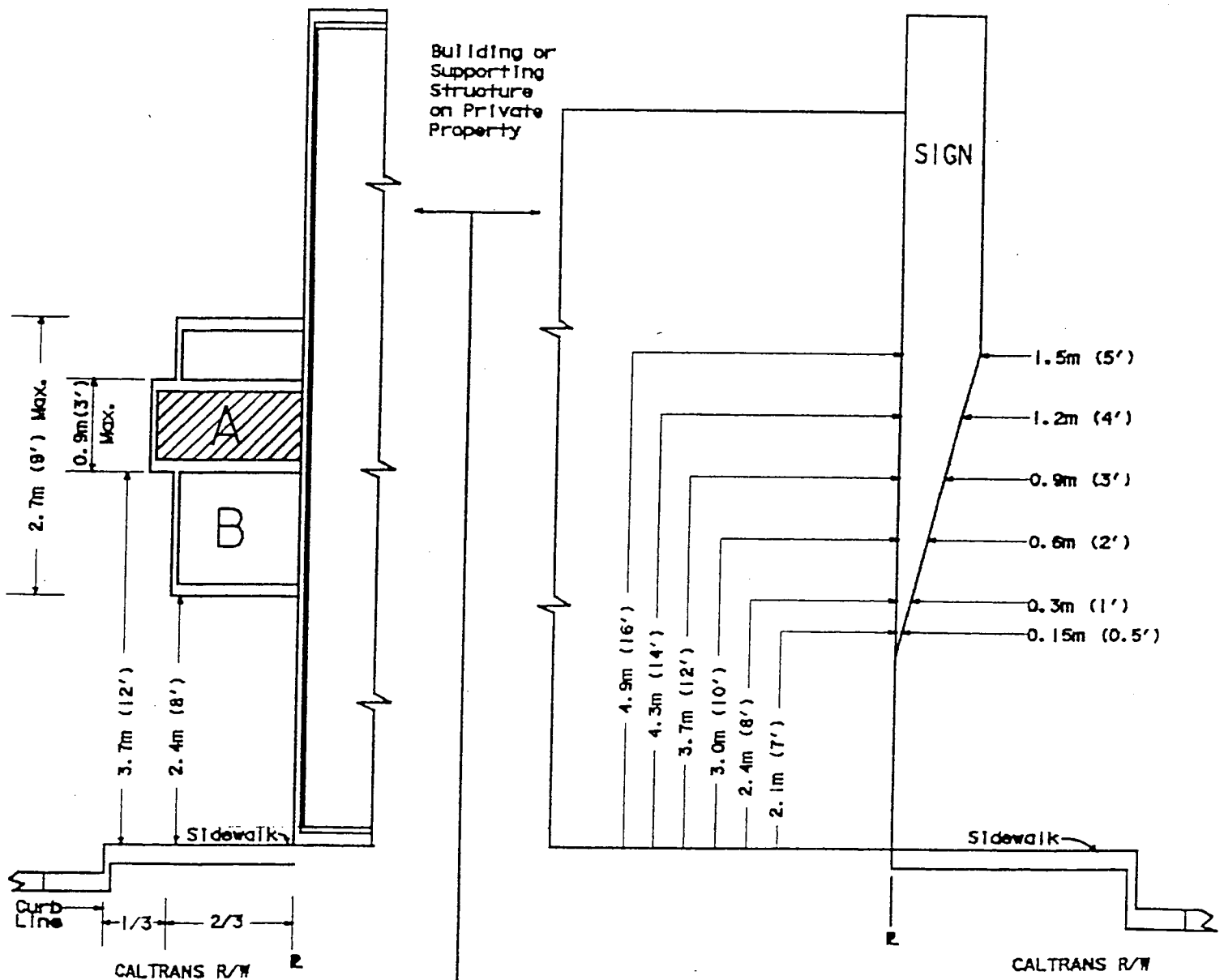
2. Single-faced signs placed flat against and supported by the building may overhang the right of way 300mm (12") at a height of not less than 2.4m (8') above sidewalk grade.

3. Double-faced signs are regulated by relationship of maximum overhang encroachment and minimum clearance above sidewalk grade, as shown on drawing.

MARQUEES

Uniform Building Code
Chapter 45, Section 4505
Specifications

DOUBLE-FACED SIGNS



STANDARD SPECIAL PROVISION "K"

REV. 7/96

Page 4
NO SCALE

DEPARTMENT OF TRANSPORTATION- DISTRICT 7
SPECIAL PROVISION "H" - SIGNALS
7/96

This special provision "H" is to be used as minimum specifications to install, repair and/or maintain Caltrans signals and/or signal appurtenances.

The following items are electrical requirements of the permit:

1. Traffic signal work shall be done in accordance with the State of California Standard Specifications.
2. The permittee shall pay for any temporary wiring or service connections required to keep the existing traffic signal systems in effective operation during modifications.
3. Existing traffic signal systems on State highways shall be kept in normal operation for the benefit of the traveling public during progress of the work. If the traffic signal system shutdown is necessary, shutdown hours shall be limited to short periods between 9:00 AM and 3:00 PM, as directed by the State permit electrical inspector. No shutdowns will be allowed on Fridays or the day before a legal holiday.
4. On all permit work involving installation or revision of the State's lighting, signal or electrical facilities, permittee shall notify the State permit electrical inspector at (213) 620-2030, at least (3) three working days in advance of his intention to begin work.
5. Field wiring shall be as directed by the State permit electrical inspector.
6. The curb and/or berm or any other item of protection on the traffic side of any signal and/or street light facilities shall remain in place until after the facilities have been relocated.
7. The signal and/or street lighting facilities shall be relocated prior to starting the road work in the area.
8. Any turn-on of new signals or the shutdown of existing electrical facilities must be cleared and approved at least (3) three working days in advance with the State permit electrical inspector. No turn-ons will be allowed on Fridays or the day before a legal holiday.
9. In the event of conflict with the existing traffic signal and/or lighting systems, where no electrical work is authorized in the permit, call the State permit electrical inspector at (213) 620-2030.
10. If it is necessary to disturb the traffic signal equipment or if any damage to the equipment is incurred, all work or repairs shall be expeditiously pursued and will be the responsibility of the permittee at no cost to the State.

DEPARTMENT OF TRANSPORTATION- DISTRICT 7
SPECIAL PROVISION "H" - SIGNALS

7/96

page 2

11. All repairs shall be made within ten (10) working days after incurring the damage. All damage causing an immediate danger to the public health and safety shall be repaired immediately.

12. Electrical pull boxes shall be plastic lined No. 5 or larger.

13. All installations of controller cabinets shall provide a minimum of two (2) 75mm (3") diameter conduits, placed through the controller foundations and extending into the nearest No.6 pull box.

14. Interconnect cable shall not be spliced.

15. The face of poles shall not be placed closer than 0.6m (2') from any curb face (this includes street light poles).

16. Modification of the existing traffic signal system which involves replacement of poles and/or mast arms, shall also include new signal heads and pedestrian heads.

17. All standards (poles, mast arms, luminaries, signal heads, etc.) near or in a proximity of any high-voltage lines shall meet CAL/OSHA'S Electrical Safety Orders (High Voltage) Article 86, Table 2 - California Administrative Code, Title 8, Chapter 4, Subchapter 5, Electrical Safety Orders- Rules for Overhead Electrical Line Construction. (Section 86-1.02- Regulations and Code, of the Standard Specifications.)

18. All traffic loop detector installations should have a minimum depth of 90mm (3.5") for existing pavement and 125mm (5") for new pavement. Type II wire with hot-melt rubber sealant shall be used. Type E- 1.8m (6') diameter loops shall be used.

19. All conduits shall be installed at 750mm (30") below the traveled way area and 450mm (18") beneath sidewalk grade.

20. All materials (poles, signal heads, safety lights) shall have Manufacturer's Certificate of Compliance conforming to State Standard Specification.

21. When curb returns are to be constructed or replaced, wheelchair ramps shall be provided.

22. Any electrical pull boxes within the limits of the new or reconstructed wheelchair ramp shall be relocated to an area outside of the wheelchair ramp, as directed by State permit inspector.

The following standard plans may be referenced and are available at <http://www.dot.ca.gov/hq/traffops/signtech/signdel/stdplans.htm> :

- Standard Plan T-10, Lane Closure on Freeways and Expressways
- Standard Plan T-10A, Lane and Complete Closures on Freeways and Expressways
- Standard Plan T-11, Lane Closure on Multilane Conventional Highways
- Standard Plan T-12, Lane Closure on Multilane Conventional Highways (closing of half roadway).
- Standard Plan T-13, Lane Closure on Two Lane Conventional Highways
- Standard Plan T-14, Ramp Closure
- Standard Plan T-15, Moving Lane Closure on Multilane Highways (Median Or Outside Lane)
- Standard Plan T-16, Moving Lane Closure on Multilane Highways (Interior Lane)
- Standard Plan T-17, Moving Lane Closure on Two Lane Highways
- Standard Traffic Handling Plans for Ramp Closures and Detour signs, (Sheets 1 & 2).

This Special Provision “Q” is to be used as minimum specifications for maintaining traffic and lane/ramp closures.

I. MAINTAINING TRAFFIC

1. It is the permittee’s responsibility to provide for the safety of traffic and the public during operations associated with this permit.
2. All public traffic shall be permitted to pass through the construction zone with as little inconvenience and delay as possible.
3. No traffic control shall be allowed during rainy, foggy or inclement weather.
4. No traffic control shall be allowed on designated legal holidays and days before and after said holidays.
5. A California licensed contractor, possessing a valid Class A (General Engineering Contractor) license may perform their own traffic control on State Highways only. A contractor possessing a valid Class C-31 (Construction Zone Traffic Control Contractor) license may perform traffic control on State highways and freeways.
6. Contractor's operations shall be conducted in such a manner as to cause as little inconvenience as possible to abutting property owners. Convenient access to driveways, houses, and buildings along the line of work shall be maintained.
7. Permittee shall use traffic-handling equipment and devices in accordance with Section 12, “Construction Area Traffic Control Devices,” of the State of California Standard Specifications. These specifications are applicable to flagging, signs, and all other traffic control devices furnished, maintained, and removed.
8. Signs, lights, flags and other warning devices and their use shall conform to the requirements set forth in the current California Manual on Uniform Traffic Control Devices (MUTCD).
9. Permittee shall obtain a Closure ID and Log number from the State permit inspector. The permittee shall notify the State permit inspector and the Traffic Management Center (TMC) by telephone at (323) 259-2352 immediately prior to a lane/ramp closure. Inform Caltrans’ dispatcher the “10-97 closure number _____” before closure installation, and the “10-98 closure number _____”

_____” after closure and all signs have been removed with lane/ramp opened to traffic. Permittee should also provide the Caltrans’ dispatcher with an on-site phone number where information regarding this permit may be readily obtained during the closure period.

10. Flaggers shall perform their duties and be provided with the necessary equipment in accordance with the current “Flaggers Handbook” of the Department of Transportation and as provided in the permit. The handbook is available at: <http://www.dot.ca.gov/hq/construc/flagging/flaggerhandbook2007.pdf>
11. Existing traffic signals and highway lighting shall be kept in operation during progress of the work.
12. Flashing beacons are required for all night closures.
13. At least one person shall be assigned to provide full time maintenance of traffic control devices, unless otherwise directed by State permit inspector.
14. All lane closures on multilane highways and freeways shall be installed using an approved flashing arrow board(s). All signs shall conform to the requirements of State of California Standard Specifications Section 12-3.03 “Flashing Arrow Signs”. The State permit inspector shall shut down any project found to have such a lane closure without the required flashing arrow signs.
15. Each vehicle used to place, maintain and remove components of a traffic control system on multilane highways shall be equipped with a Type II flashing arrow sign which shall be in operation when the vehicle is being used for placing, maintaining or removing the components. Vehicles equipped with Type II flashing arrow sign not involved in placing, maintaining or removing the components when operated within a stationary type lane closure shall only display the caution display mode. The sign shall be controllable by the operator of the vehicle while the vehicle is in motion. The flashing arrow sign shown on the plans shall not be used on the vehicles which are doing the placing, maintaining and removing of components of a traffic control system and shall be in place before a lane closure requiring the sign’s use is completed.
16. Portable changeable message sign (PCMS) may be required by the permit. The PCMS shall be furnished, placed, operated, and maintained at the location specified in the permit or as directed by the State permit inspector in conformance with the State of California Standard Specifications, Section 12. The message on the PCMS shall be approved by the State permit inspector.
17. When existing accommodations for pedestrian access is disrupted or closed, the Permittee shall conform to the requirements set forth in the current State of California Standard Specification, Section 12-7 and the California MUTCD.
18. When existing accommodations for bicycle travel is disrupted or closed, the Permittee shall conform to the requirements set forth in the current California MUTCD.

II. TEMPORARY PAVEMENT DELINEATION

1. Whenever the work causes obliteration of pavement delineation, temporary or permanent pavement delineation shall be in place prior to opening the traveled way to public traffic. Lane line and/or centerline pavement delineation shall be provided at all times for roadway open to public traffic.
2. The permittee shall perform all work necessary to establish the alignment of temporary pavement delineation, including required lines or marks. Surfaces to receive temporary pavement delineation

shall be dry and free of dirt and loose material. Temporary pavement delineation shall not be applied over existing pavement delineation or other temporary pavement delineation. Temporary pavement delineation shall be maintained until superseded or replaced with a new pattern of temporary pavement delineation or permanent pavement delineation.

3. The minimum lane line and centerline delineation to be provided for that area shall be temporary pavement markers placed at longitudinal intervals of not more than 24'. The temporary pavement markers shall be the same color as the pavement markers replaced.
4. Temporary pavement markers shall be, at the option of the permittee, either temporary pavement markers for short term day/night use (14 days or less) or long term day/night use (6 months or less).
5. The temporary pavement markers shall be placed in conformance with the manufacturer's instructions. Temporary pavement markers for long term day/night use (6 months or less) shall be secured to the surfacing with the adhesive recommended by the manufacturer; epoxy adhesive shall not be used to place the temporary pavement markers in areas where removal of the temporary pavement markers will be required.
6. If the permanent pavement delineation is not placed within 14 days, the permittee shall replace the temporary pavement markers and provide additional temporary pavement delineation and shall bear the cost thereof. The additional temporary pavement delineation to be provided shall be equivalent to the pattern specified for the permanent pavement delineation for the area, as determined by the State permit inspector.
7. Temporary pavement delineation for edgelines shall, at the option of the permittee, consist of either a solid 4" wide traffic stripe of the same color as the stripe the temporary edgeline delineation replaces, or traffic cones or portable delineators placed at longitudinal intervals not to exceed 50'. The lateral offset for traffic cones, portable delineators or channelizers used for temporary edgeline delineation shall be as determined by the State permit inspector. If traffic cones or portable delineators are used as temporary pavement delineation for edgelines, the permittee shall provide personnel to remain at the project site to maintain the cones or delineators.
8. Temporary pavement delineation including pavement markers, removable traffic tape, and underlying adhesives which are applied to the final layer of surfacing or existing pavement to remain in place or which conflict with a subsequent or new traffic pattern shall be removed when no longer required for the direction of public traffic as determined by the State permit inspector. All temporary pavement delineation shall be removed before the final delineation is placed.

III. TEMPORARY RAILING & CRASH CUSHION

1. The placing of temporary railing (Type K) and temporary crash cushion (sand filled) shall conform to the requirements of State of California Standard Specifications Section 12-3.08 "Temporary Railing". Temporary railing (Type K) and crash cushion placements shall conform to the details shown on State of California Standard Plans T1A, T1B, T2 and T3.
2. A Type P marker panel shall be attached to the front of the crash cushions as shown on the plans or as directed by the State permit inspector.

DEPARTMENT OF TRANSPORTATION DISTRICT 7
SPECIAL PROVISIONS "R" - (BLUE REFLECTIVE PAVEMENT MARKERS)
7/9

This Special Provision "R" and its attachments are to be used as minimum specification for the installation of blue reflective pavement markers and appropriate signing to identify fire hydrant locations.

I. Responsibilities of Local Fire Districts:

1. The fire district initiating the request will be responsible for furnishing, installing and maintaining the blue markers on state highways and freeways.

2. Installation of blue markers may be performed by fire district personnel.

3. The use of fire trucks or emergency type vehicles on the freeways will not be permitted during the installation.

4. The fire district will be billed for the cost of lane closure performed by Caltrans Maintenance forces on state freeways.

II. Supplemental Sign or Markings Installation:

1. The fire district may install small supplemental signs or markings to identify the hydrant number or distance to the hydrant.

2. Stenciling on asphalt concrete shoulder, concrete barrier wall, guard railings and sign post may be permitted. Size and color shall be as approved on permit plans.

3. Sign material shall be metal and shall be secured by bolts in pre-drilled holes or epoxy.

4. Holes in sound barrier walls will not be permitted for hoses of the fire district without a separate encroachment permit.

III. Installations of Pavement Markers:

1. Two-Way Streets or Roads -- Markers shall be placed 150mm (6") from edge of painted centerline on the side nearest the fire hydrant. If the street has no centerline, the marker shall be placed 150mm (6") from the approximate center of the roadway on the side nearest the hydrant. See Figures 1 through 3.

2. Streets with Left Turn Lane at Intersection -- Markers shall be placed 150mm (6") from edge of painted white channelizing line on the side nearest the hydrant. See Figure 4.

3. Streets with Continuous Two-Way Left Turn Lane -- Markers shall be placed 150mm (6") from the edge of the painted yellow barrier line on the side nearest the fire hydrant. See Figure 5.

DEPARTMENT OF TRANSPORTATION DISTRICT 7
SPECIAL PROVISIONS "R" - (BLUE REFLECTIVE PAVEMENT MARKERS)
7/9
page 2

4. Freeways and Expressways -- Markers shall be placed on shoulder 0.3m (1') to the right of the painted edgeline opposite the off-right of way fire hydrant location. See Figure 6.

TYPICAL HYDRANT MARKER LOCATION

Figure 1
TWO LANE STREET

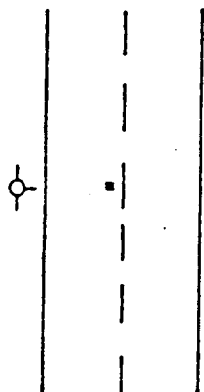


Figure 2
MULTI-LANE STREET

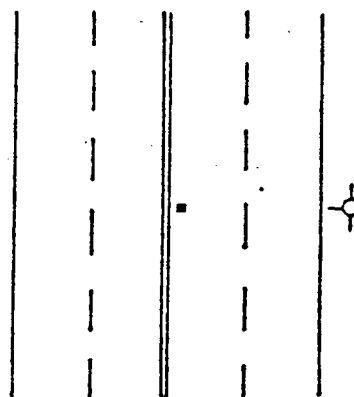


Figure 3
TWO LANE STREET
AT INTERSECTION

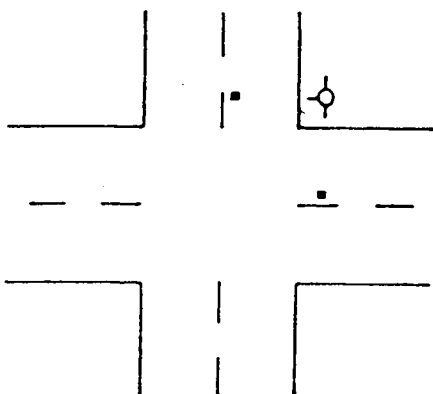


Figure 4
FOUR LANE STREET WITH TURN LANE
AT INTERSECTION

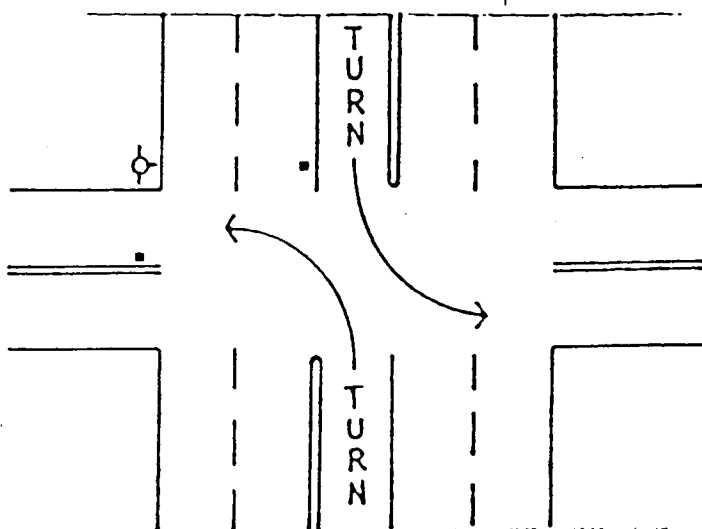


Figure 5
MULTI-LANE STREET WITH
TURN LANE

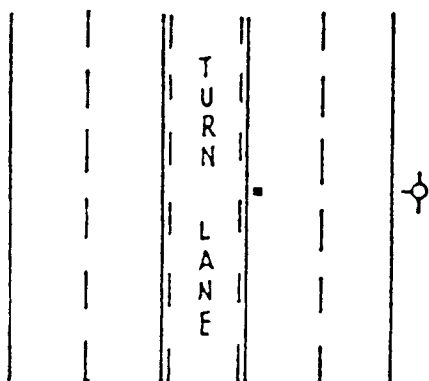
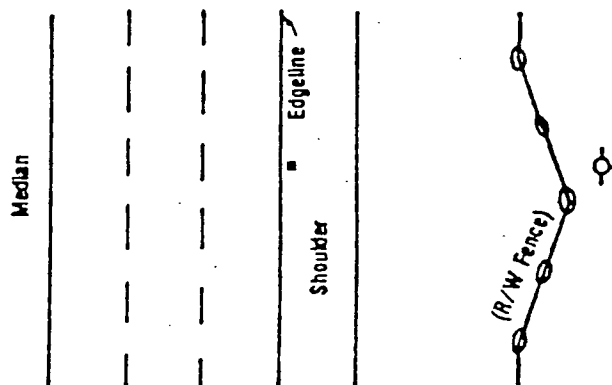


Figure 6
FREEWAYS AND EXPRESSWAYS



APPENDIX X

FEDERAL REQUIREMENTS

**FEDERAL REQUIREMENTS AND
LOS ANGELES COUNTY FEDERAL WAGE RATES**

In July 2009, a new Office Bulletin (DLA-OB 09-03 - Using the Internet for Federal Wage Rates) was posted on the State's Local Assistance "Publications" website at <http://www.dot.ca.gov/hq/LocalPrograms/public.htm>

Change:

During the advertising period, the applicable federal wage rates no longer need to be physically included in the advertising package for local agency Federal-aid contracts. However if not physically included in the advertising package, the applicable federal wage rates must be referenced with an Internet Website address where they can be found.

The City of Torrance hereby notifies prospective bidders that the applicable federal wage rates for this project can be found at <http://www.dot.ca.gov/hq/esc/oe/federal-wages/>

Any revisions to the applicable federal wage rates, up to 10 days before bid opening, shall be identified by the issuance of an addendum with the corresponding Internet Website address of where the revisions can be found.

Impacts:

This Office Bulletin supersedes Chapter 12, Section 12.9 (Federal Wage Rates), Exhibit 12-D (PS&E Checklist), and Exhibit 12-E (PS&E Checklist Instructions) of the Local Assistance Procedures Manual.

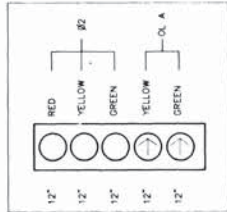
APPENDIX XI
TRAFFIC SIGNAL MODIFICATION PLAN
(FOR REFERENCE ONLY)

GENERAL NOTES

1. ALL MATERIALS AND EQUIPMENT SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR, EXCEPT RADIO CORRECTED THE BASE UNIT AND ANTENNA.
2. RADIO CORRECTED THE BASE UNIT, AND ANTENNA TO BE FURNISHED AND INSTALLED BY THE COUNTY.
3. ALL WIRING, WHETHER EXISTING OR NEW, SHALL BE MARKED ("TAGGED") WITHIN THE CONTROLLER CABINET FOR PHASE IDENTIFICATION.
4. ALL SIGNAL EQUIPMENT SHALL BE WIRED IN ACCORDANCE WITH THE NEW SIGNAL PHASE DIAGRAM.
5. ROUND LOOPS (6" DIAMETER) MAY BE SUBSTITUTED IN LIEU OF 8"x6" OCTAGON LOOPS.
6. ★ INDICATES QUEUE CLEARING LOOPS.
7. NEW PEDESTRIAN PUSH BUTTONS SHALL HAVE THE PEDESTRIAN PUSH BUTTON SOKS (PLATES) THAT CORRESPOND TO THE EXISTING PEDESTRIAN SIGNAL HEADS. SEE SPECIAL PROVISIONS.
8. FOR DISPOSITION OF SALVAGED MATERIALS, CONTACT THE CITY OF TORRANCE. SEE SPECIAL PROVISIONS.
9. POSMAU COAXIAL CABLE SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR FROM THE CONTROLLER TO THE DESIGNATED STANDARD, AS INDICATED ON THE PLAN. THE CABLE SHALL BE COILED IN THE BASE OF THE STANDARD AND BE OF SUFFICIENT LENGTH TO REACH THE TOP OF THE STANDARD INDICATED PLUS AN ADDITIONAL 3 FEET OF CABLE.
10. ALL EXISTING CONDUITS SHALL BE REUSED UNLESS OTHERWISE NOTED AND NEW CONDUITS SHALL BE INSTALLED THROUGHOUT THE EXTENT OF THIS MODIFICATION UNLESS OTHERWISE APPROVED BY THE ENGINEER.
11. PROPOSED SIGNING AND MARKINGS BY THE CONTRACTOR.
12. ALL WORK, MATERIALS AND EQUIPMENT SHALL BE IN ACCORDANCE WITH CALTRANS STANDARD PLANS & SPECIFICATIONS DATED JANUARY 1988.

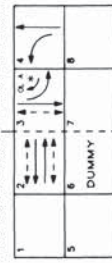
DETECTOR SCHEDULE	
SENSOR #	LOCATION
1	1-N-82
2	1-S-82
3	1-E-82
4	1-W-82
5	1-S-83
6	1-E-83
7	1-W-83
8	1-S-84
9	1-E-84
10	1-W-84
11	1-S-85
12	1-E-85

- ★ SHELVE TYPE
- ▲ DETECTOR INPUT LOCATIONS



EXISTING SIGNAL PHASE DIAGRAM

PROPOSED SIGNAL PHASE DIAGRAM



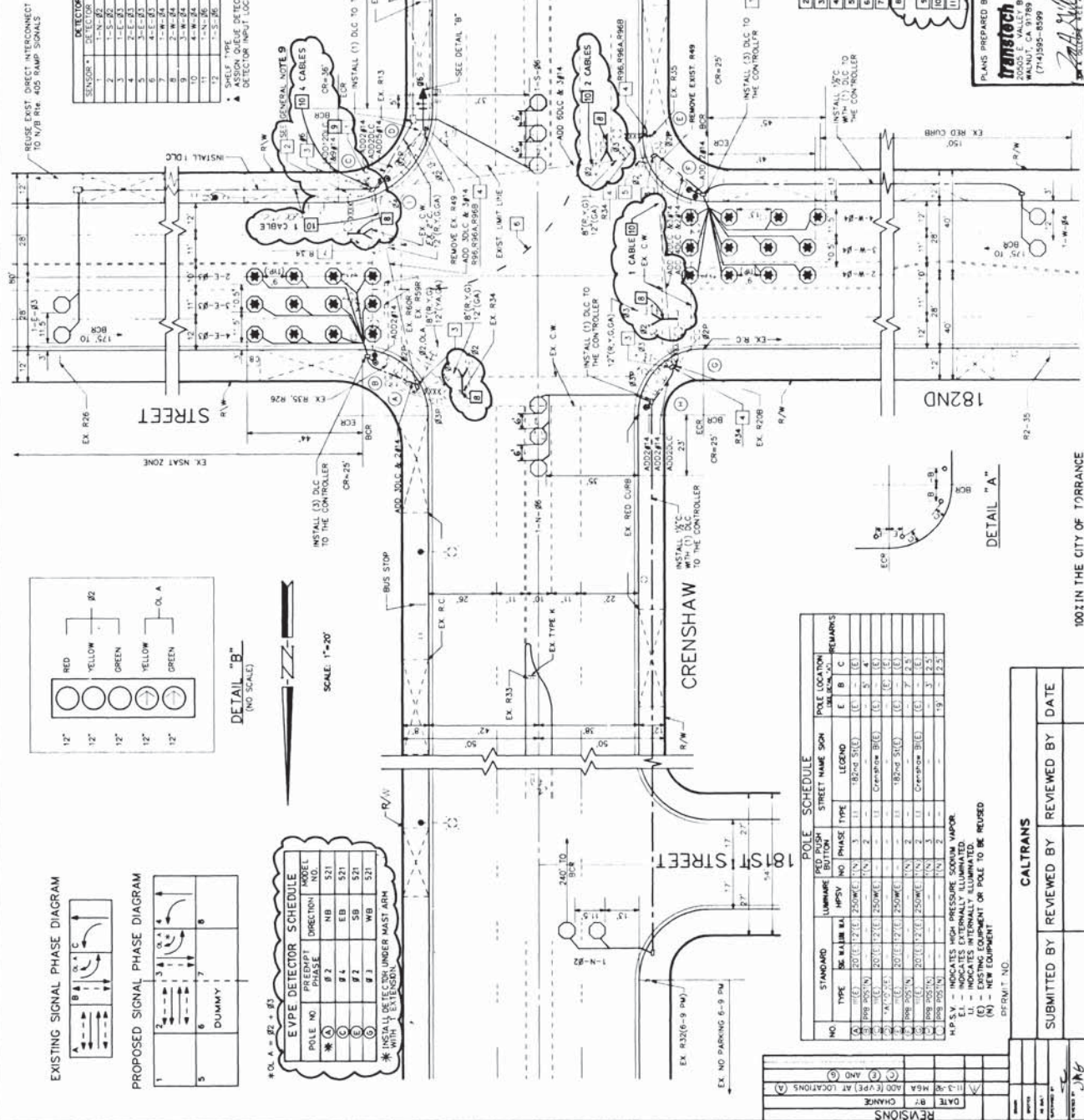
DETAIL "B"

(NO SCALE)

SCALE: 1"=20'

EVE DETECTOR SCHEDULE	
POLE NO.	DIRECTION
★ A	NB
★ B	SB
★ C	EB
★ D	WB
★ E	SB
★ F	WB
★ G	SB
★ H	WB
★ I	SB
★ J	WB

* INSTALL DETECTOR UNDER MAINT ARM WITH EXTENSION



CONSTRUCTION NOTES

1. REMOVE AND SALVAGE EXISTING AMC-8000 CONTROLLER WITH NTC MODULE SWITCH-PACKS. INSTALL NEW "30" CONTROLLER (ECONOLITE ASC-8000 OR EQUIV.) TO CONNECTOR CABLE, INTERFACE BOARD, (2) LO SENSOR (USE GENERAL NOTE 2) AND RADIO CORRECTED THE BASE UNIT.
2. ANTENNA ON TOP OF SIGNAL POLE TO BE FURNISHED AND INSTALLED BY THE COUNTY.
3. INSTALL NEW PULLBOX IN SAME LOCATION AS EXISTING PULLBOX.
4. INSTALL SIGN WITH STRAP AND SADDLE BRACKET.
5. INSTALL BACK PLATE.
6. INSTALL CALTRANS DETAIL 40.
7. INSTALL SIGN PER STD. PLAN E2-67 DETAIL "U".
8. INSTALL MODEL 50 OPTICAL DETECTOR (EVE) ON TRAFFIC SIGNAL POLE MAST ARMS AT LOCATIONS 8, 9, 10, 11, AND 12.
9. INSTALL MODEL 502 DISCRIMINATOR MODULES.
10. INSTALL INDICATED NUMBER OF MODEL 138 EYE CABLES IN EXISTING CONDUITS.
11. ALL CABLE SHALL BE INSTALLED IN THE EXISTING CONDUIT RUN UNLESS OTHERWISE DIRECTED BY ENGINEER.

BOULEVARD

CRENSHAW

182ND

DETAIL "A"

POLE SCHEDULE	
NO.	STANDARD
1	1-N-82
2	1-S-82
3	1-E-82
4	1-W-82
5	1-S-83
6	1-E-83
7	1-W-83
8	1-S-84
9	1-E-84
10	1-W-84
11	1-S-85
12	1-E-85

H.P.S.V. - INDICATES HIGH PRESSURE SODIUM VAPOR
 E.I. - INDICATES EXTERNALLY ILLUMINATED
 (E) - EXISTING EQUIPMENT OR POLE TO BE REUSED
 (N) - NEW EQUIPMENT

PERMIT NO.

CALTRANS

SUBMITTED BY

REVIEWED BY

DATE

PLANS PREPARED BY:

trans-tech

20505 E. VALLEY BLVD. #104

WALNUT, CA 91789

(714) 585-8599

DATE: 1-17-91

SUBMITTED DATE: 1-22-91

RECOMMENDED DATE: 1-22-91

APPROVED: A. TORRANCE

DIRECTOR OF PUBLIC WORKS

LOS ANGELES COUNTY

DEPARTMENT OF PUBLIC WORKS

TRAFFIC SIGNAL MODIFICATION PLAN

CRENSHAW BLVD. - 182ND ST.

PLAN NO. TS 92-252

SCALE: 1"=20'

SHEET 13 OF 22

T.L. 58-1